Textile World

Established 1868
With which are combined
TEXTILES and POSSELT'S TEXTILE JOURNAL

334 Fourth Ave., at 25th St. NEW YORK, DECEMBER 6, 1924 VOL. LXVI, NO. 23

Woolen and Worsted Men Discuss the Future

Symposium of Views from Cloak and Suit Man, Clothier and Credit Expert Feature of Annual Meeting of American Association—Robert T. Francis Elected President—Capt. Irving O'Hay, "Soldier of Fortune," Speaks at Banquet

FOLLOWING its practice of recent years, the American Association of Woolen & Worsted Manufacturers had planned for the main feature of its annual meeting, held on Wednesday at the Waldorf Astoria, New York, a symposium of views from representatives of allied industries. This year three addresses were presented, one from a cloak and suit manufacturer, one from a men's clothing manufacturer and one from a credit expert. The value of this outside contact has been proved in previous years and this year's experience was no exception. It is in this way that the annual meeting has come to represent an accurate summing up of the trade situation from the various important angles.

The meeting was also featured by the election of officers, Robert T. Francis, of the Pontoosuc Woolen Mfg. Co., being chosen president for the coming year. The vice-presidents elected were A. M. Plyer, of Metcalf Bros. & Co., and Charles H. Wilson, of James & E. H. Wilson, Inc.

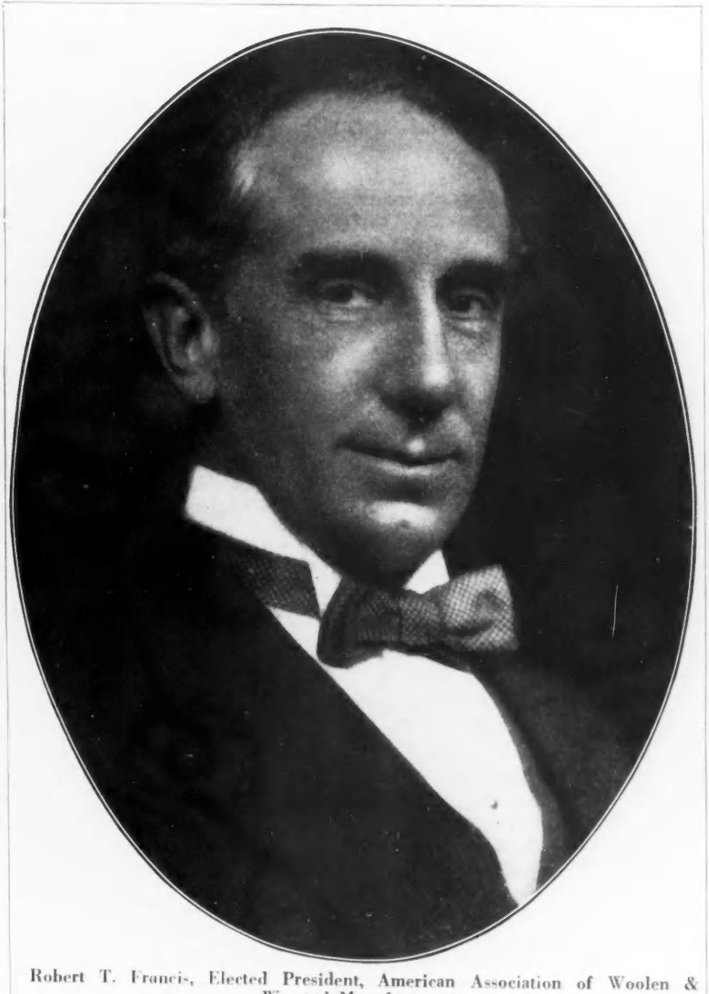
As the terms of seven members of the Board of Directors expired, the following were appointed for the three year term: Robert T. Francis; Francis T. Maxwell, of The Hockanum Mills Co., Herbert E. Peabody, T. Guerin & Co., Inc.; A. M. Plyer; George B. Sanford, of Sanford & Russell; Philip L. Schell, of W. Stursberg, Schell & Co.; and J. P. Stevens, of J. P. Stevens & Co.

President's Address

The meeting was introduced by the annual address of the president, A. L. Gifford, of the Worumbo Co. Mr. Gifford touched on the high lights of the work of the association and made several constructive suggestions for future development. This address was followed by the report of the treasurer and the joint report of the Board of Directors, Executive Committee and Secretary. Special reports presented included an important one presented by the Copy of Order Committee, Galen M. Harris, chairman, which recommended certain vital clauses. Still another special report was that submitted by the Committee on Trade Disputes, by H. E. Peabody, chairman. President Gifford's address and these reports are printed elsewhere in this issue.

The Future

In opening the discussion of "The Future," the president stated that it had been felt for some time that the association could do nothing of greater service to its members at the annual meetings than to consider the immediate future as affecting their business. The contributors to this symposium were Maxwell Copelof, of Copelof, Stillman & Co., for the cloak and suit industry; William Goldman, of Cohen, Goldman & Co., representing the men's clothing industry; and A. D. Whiteside, president of the National Credit Office, who presented the credit viewpoint. These three addresses are printed in another column. Incidentally, in introducing Mr. Goldman, the president expressed appreciation of Mr. Goldman's aid in the establishment of a Mutual Adjustment Bureau, stating that he doubted if this development could have been realized without the backing given by Mr. Goldman as a representative of the clothiers.



Robert T. Francis, Elected President, American Association of Woolen & Worsted Manufacturers.

Resolution Adopted

The following resolution was adopted by the association at the afternoon meeting:

"Whereas it appears necessary in the interests of a clear understanding to reaffirm the position of the American Association of Woolen and Worsted Manufacturers with respect to the work of its Committee on Trade Disputes and the list issued by that committee to members,

"It is resolved that the purpose of this list, issued confidently under the "Privileged Communication" clause to members only, is to furnish members with information in the nature of a moral credit report, and

"It is further resolved that there exists no agreement, undertaking or understanding among members as to the uses to be made of such list, the committee recognizing the right of the member to employ it in his own way."

The Association Banquet

The members of the American Association of Woolen and Worsted Manufacturers checked their business worries with their hats when they entered the banquet hall on Wednesday evening. The occasion was one of pure pleasure without the interjection of any serious elements. Even the new president, Robert T. Francis, fell in line with this program and substituted a few happy remarks for a presidential address. Mr. Francis welcomed the members as follows:

"It is an honor and a great pleasure, on behalf of the American Association, to welcome each one of you here to this our 18th annual banquet. Your officers are delighted that so many have cared to come,—over 650. The serious session of our annual convention was held this afternoon, so we shall devote this evening entirely and freely to good-fellowship.

"I note boutonnieres of carnations about the room. I trust not one of you was over-looked by the fair charmers.

"A program that must be carried through on schedule has been prepared by your Entertainment Committee and, I trust, for your great pleasure.

"In accepting again the presidency

of your organization, for some of you will recall that I held this office 10 or 12 years ago, I did so with one distinct understanding, i. e., that I shall *not* be called upon to make speeches.

"It takes wiser men than I to enlighten an audience such as this.

"In accordance with this understanding, I take great pleasure in presenting Johnny Hines, the very well known moving picture actor, who is so favorably recognized, and who has kindly consented to introduce the several artists."

Johnny Hines therefore presented the various artists who had been commandeered by the Entertainment Committee. The program was an exceptionally attractive one and added further glory to the reputation of these annual affairs.

Captain O'Hay Speaks

The piece de resistance of the evening was of course the address of Capt. Irving O'Hay, "Soldier of Fortune, Connoisseur of Wars, and Raconteur." Capt. O'Hay is by now an old friend of the textile industry and he once more proved his ability to capture an audience by storm.

Address of President

By *A. L. Gifford*

AS I rise to the privilege of calling to order this 18th annual meeting of the American Association of Woolen and Worsted Manufacturers, I am impressed with the thought of what an 18th annual meeting signifies. It stands to reason that nothing progresses for 18 years without having merit. Most of us here today can, without much effort, look back to a time in our industry when few of us had much, if any, contact with others in our line of business; when a good deal of suspicion and jealousy existed; when, in a word, because we did not know each other, we did not trust each other.

There is a marked contrast between that state of affairs and conditions which exist today; and your association is entitled to the complete credit of bringing it about. When I hear the question—and I do occasionally—as to what use after all an Association is, I cannot help reflecting how completely the inquirer either forgets or overlooks the spirit of cooperation and fraternity which exists in our market today, and the fact that this association brought it about. If the association had done no other thing that alone would have justified its existence.

Of course, it is most gratifying at an occasion like this to be able to record that it has done very much more, for not only has it produced a spirit of friendliness and cooperation among sellers, but it has also developed a much clearer understanding than ever existed before between sellers and buyers. In addition to this it has set up machinery through which difficulties and disputes incident to daily commerce can be disposed of to the complete satisfaction of both the buyer and the seller, which is another great factor in the general system and policy under which the association has been built up and conducted.

I know of no greater tribute to a selling market than the fact that your customers will voluntarily put themselves and their disputes in the hands of committees of your association with implicit faith that they will be dealt with justly and that is exactly the thing that happens every week in the year in our association rooms.

This machinery is so arranged that should he desire to do so it is possible for a buyer to request that his dispute be placed before a joint committee, made up of both buyers and sellers and yet no more than two or three times in a year do we have such a request. All the rest of the time the buyer expresses a willingness to submit his difficulties to a committee of your members and to abide by the result.

Active Committee Work

It was not so long ago that it was difficult to arrange committees—the average member shied at serving on them, usually giving as an excuse that he could not spare the necessary time. Such a response from a member today is almost unknown. With a spirit of willingness that is encouraging beyond words you—our general membership—today accept appointments on committees and give yourselves whole-heartedly to the work of intelligently and exhaustively solving the problems set before you.

No surer measure of the influence and value of an association's work could be had than the fact that members are willing to give their time and energy to the furtherance of the work in hand.

Another measure of the association's progress is found in sustained and increased membership. At the present moment more looms are represented in the American Association and its revenue is greater than at any time in its history.

Contact with Outside

To turn for a moment from the association viewed locally and internally, to its relationship with other branches of the trade, we find increasing points of contact and corresponding gain therefrom.

In the case of the National Association of Wool Manufacturers and the National Association of Worsted and Woolen Spinners, we have no permanent or general joint committees, because our relationship in both instances is so intimate that it is possible at any time to appoint joint committees for the consideration of specific matters.

We have permanent joint committees on statistics; on research and standardization, and on fabric labelling legislation.

We have a Joint Committee with the cloak, suit and skirt industries, which meets when occasion requires, and your Executive Committee has approved plans for establishing a committee with the Associated Clothing Manufacturers of New York. We are hoping for the possible establishment of a National joint committee to be composed of members of our association and designated individuals in the several men's clothing markets, who, together, would bring about a kind of revival of the old Joint Committee of Woolen and Worsted Manufacturers, which accomplished such good work and which, unfortunately, ceased automatically with the dissolution of the National Association of Clothiers.

For the first time in the history of our association we have, during the past year, established a Dress Goods Committee, which devotes itself to considering problems affecting the women's wear branch of our industry. The work which this committee has this far accomplished convinces me that in the year to come much improvement will be made in conditions and relations existing between our association and the women's garment manufacturing industry.

National Matters

In matters of national scope, the Association each year increases its position and its capacity for influence in Washington, and in this connection it is with no small gratification that we view the recent election of business men to the United States Senate,—one of them being one of our own members—Jesse H. Metcalf of Metcalf Bros. & Co., which gives us direct representation in the Upper House of Congress.

This year, with others, we have been responsible once again for blocking the French-Capper Bill—a type of legislation which is pernicious in that, under the semblance of aiding the many, it is really intended to assist the few.

It has not been our practice, nor is it likely to be, to rush to Washington on the slightest provocation; but by intelligent effort during the past few years we have, I believe, established in the minds of members of Congress the belief that we are not lobbyists, who are attempting to put over anything, but are simply sincere, fair-minded and earnest representatives of an important industry, and this impression has I believe given us an entree which is invaluable, when, for whatever reason, it is necessary to make ourselves heard.

I occupy the enviable position of being able to congratulate you on two of the most successful years of your association, without the slightest suspicion of claiming any personal credit. When you elected me two years ago, I expressed a willingness to accept the honor if you would do the work. You have performed your part of the contract far beyond my expectations, with an interest and enthusiasm which I believe will continue for years to come.

I want to express publicly to the members of the Executive Committee the great pleasure I have enjoyed in serving with them and my appreciation of the indefatigable effort of their chairman, Mr. Peabody.

The greatly increased work which the membership is giving the association is affording all of you an opportunity of realizing, as you probably never did before, the rare qualifications of Secretary Nevins and the efficiency of his assistants. I shall always remember with great pleasure the kindly consideration of each and all of you during the last two years of my connection with the association.

Joint Report of the Directors, Executive Committee and Secretary

Presented by *J. J. Nevins,* Secretary

UNTIL recently three formal reports were prepared for submission at our annual meetings, one by your Board of Directors, one by your Executive Committee and one by your secretary. Recognizing that duplication in the Board and Executive Committee reports was inevitable because of necessity both have to deal with the same matters, these reports were consolidated. It is now proposed to further reduce the number of formal reports and duplication of effort by combining all three. The following therefore is submitted as the joint report of your Board, your Executive Committee and your secretary.

Since we met here a year ago your Board has held three meetings, your Executive Committee has held 20 meetings, and the association came together in one general midyear meeting.

We have elected to membership eight active members and three associate. There have been some resignations due to dissolutions, deaths and liquidations, but our total membership in number is very close to the greatest the association has ever recorded and today in looms represented the association is greater than ever before in its history. Looms represented by new members elected during the year total about 3500, while looms represented by resignations total only 580.

The departmental and routine work of the association has gone forward and of necessity increased. It is without gesture or color and does not make interesting reading and moreover it is not easily measurable in terms but its composite effect upon the market is inestimable.

Fabric Labeling Legislation

When we turn to special matters, we find that once again fabric labeling legislation has occupied a good deal of time, energy and expense. It

should be stated briefly that a day or two after our last annual meeting we learned that the National Sheep and Wool Bureau of Chicago had lost its president, agreed to withdraw its support from the French-Capper Bill which it evolved and sponsored and agreed to support an amended Lodge-Rogers Bill.

This presented a situation in which for the time being at least there existed in no quarter, pressure for a compulsory labeling bill and it seemed the tactical time to press for a measure such as the Lodge-Rogers Bill which was not compulsory but protective.

The matter rested until it was announced somewhat unexpectedly that a sub-committee of the Committee on Interstate Commerce of the Senate would conduct hearings on the French-Capper and Lodge-Rogers Bills. Your association and others were represented at these hearings but up to the time Congress adjourned nothing came of them. Later in the Spring the Committee on Interstate and Foreign Commerce of the House announced that it would conduct hearings on Labeling Legislation Bills generally and that it would sit as a whole committee.

Thereafter the chairman of the committee announced that the whole matter had been referred to a sub-committee. What the sub-committee has done or is likely to do is not known because Congress adjourned before it took action of any kind, all of which means that the whole subject of labeling legislation is now almost where it was at the beginning of the year. In both Houses of Congress, it is before sub-committees.

The probability of action at the short session of Congress is remote and, barring an extra session, we are apparently free from the possibility of labeling legislation of any kind for a year or more. Moreover it appears not too optimistic to conclude that time will demonstrate the fallacy and futility of a compulsory labeling act so that when Congress comes finally to enact a bill it will be one that will assist and help the public and the industry and that result will be a clear tribute to the effort of your association and others over the years, to preclude impractical and annoying legislation.

Another phase of the labeling problem has to do with the application of a compulsory labeling bill in the State of Wyoming where, after the law had been on the statute books for two or three years or more, three or four retailers were, without warning, arrested for offering suits purporting to contain wool without a label indicating their fibre content. The circumstances under which the suits were brought clearly indicated that it was the hope of those responsible for the arrests to get a quick judgment and use it as a persuasive argument before congressional committees for the enactment of the French-Capper Bill. The National Association of Retail Clothiers were able to stay action and have the matter put over for the fall term of the court.

A trial in the lower Courts in Wyoming is imminent, and necessarily all those organizations that have in the past been involved in the effort against compulsory labeling will watch the situation in Wyoming with very close interest.

In our contact with Washington and apart from the labeling legislation we sent forward two very strong resolutions urging tax reduction and we have been in more or less steady contact with the Department of Commerce and the Bureau of Census in connection with its wool and machinery statistics.

Mutual Adjustment Bureau

We have continued to assist the Mutual Adjustment Bureau of the Cloth and Garment Trades on its road toward greater service to the industry. It is interesting to note the advance of the Bureau and the extent to which it has fixed itself in our market. There is almost no limit to the number and variety of inquiries that are addressed to the Bureau and repeatedly it performs services in the market which could be supplied by no other institution and in no other way.

In its Service Department, it has handled approximately 812,000 yards of goods during the year and in its enlarged quarters, is equipped to store piece goods.

In the Judicial Department its record for impartial decisions is clearly sustained by the following figures. Out of a total of 1310 merchandise disputes submitted for adjustment, 415 were determined in favor of the seller, 475 in favor of the buyer and 420 were compromised, by which we mean that part of the goods in dispute were awarded to the buyer and part to the seller. It should be noted that all these services continue under financial arrangements which make the bureau self-sustaining and it is to be set down as not an immodest accomplishment to develop an institution of this kind capable of disinterested service to both buyer and seller and at the same time so manage it as to make it self-sustaining. Its value and its capacity for service have of course been apparent from the beginning to the buyer and the seller but their respective agents, the sponger and the adjuster have not always been so ready to appreciate the possibilities of the Bureau. More and more, however, these agents are impressed with its impartiality and the uses to which it can be put.

Our contact through the year with spongers has embraced an effort to insure their sending back returned merchandise in the same condition in which they got it.

We have lent assistance to adjusters and helped to clarify practice with respect to their functions by establishing it as trade custom that claims which they might allow or returns which they might authorize are "void" unless in accordance with terms of sale. It is our understanding that each of the adjusters now uses this clause on all claims and returns which he passes. Previous to the adoption of this arrangement, disputes not infrequently arose which resulted from the adjuster allowing a claim or authorizing a return of

J. J. Nevins, Secretary, American Association of Woolen and Worsted Manufacturers.

merchandise which had been in the possession of the purchaser beyond the contract time or which for other reasons should not have been subject to claim or return. The use of the above indicated clause precludes this.

We continue to maintain contacts with other branches of the industry through joint committees on research and standardization and on statistics and it is planned to further extend these joint relationships among the clothiers both in New York and other states.

It is difficult to exaggerate the importance of points of contact of this kind. So often matters develop as to which a great deal of confusion and misunderstanding would prevail if it were not possible through joint discussion to dispose of them by bringing the different branches of the industry concerned together.

Through a committee especially appointed for the purpose, a revised copy of order has been recommended about which you will hear more in detail today. In establishing each clause of this draft, the committee has had in mind setting down the essence of a contract. Of necessity, the form will differ in different cases and be determined by the individual seller in his own way. The clauses recommended set up the custom and establish practice and accomplish this in the fewest possible words.

Your Committee on Trade Disputes has continued to function, meeting almost weekly throughout the year. In this respect it is to be noted that disputes have reached the association in decreasing numbers. This may be accounted for by the conclusion that subnormal business has automatically reduced the number of possible disputes or that the relations between the buyer and seller, due very directly to the work of the association in general and your Committee on Trade Disputes in particular has facilitated the direct adjustment of these disputes.

In conclusion it should be stated that the association year has been one of steady progress and that the prestige and influence of the association has been appreciably increased.

Trade Disputes Committee Report

DURING the period of depression which followed the slump of 1920, a wave of repudiation of contracts spread over the cloth market, which soon assumed such volume as to call for special action.

After due consideration of the conditions, the Executive Committee of your association caused the formation of what was then known as the Unfair Practice Committee. The committee was designed primarily to lend such assistance as it could to stem the avalanche of cancellations, returns and claims; to emphasize the validity of a contract, and to bring about a spirit of fairness that should effect a reasonable adjustment of individual cases.

Being entirely a new departure, the committee had to create its own rules of procedure and formulate its own code, but as the number of cases immediately brought before it for consideration kept the original members in daily session for a period of over three months, an experience was soon gained and precedents established, which, to a large extent, have governed the work of the committee since.

For those of the association who are not familiar with the committee, or its work, a few facts should briefly be stated:

The present Trade Disputes Committee will receive a complaint from either buyer or seller: At the first meeting following the receipt of such complaint, it is endeavored to have present both principals directly concerned in the controversy, and each is invited to relate his side to the committee, in the presence of the other. This almost invariably results in getting at the true facts, with all cards on the table, *face up*. After these are developed, the principals are excused, and the committee debates the evidence. When a conclusion is reached, the principals are recalled and informed of the committee's opinion as to the merits of the case, which have been reviewed in an impartial, equitable and judicial spirit. The committee also makes its recommendations of settlement, but does not, itself, enter into the details.

With the principals before it the committee avails itself of the opportunity to point out where in its judg-

ment, unfairness has been practiced, and the necessity of living up to a contract in spirit, as well as in technicality. These talks have in the large majority of cases been enlightening, and have at least brought about a better understanding of the contractual relationship.

On the other hand, it has frequently been necessary to point out faults, or omissions on the part of our own members and the fact that a substantial number of cases have been decided against association members is evidence of the impartial spirit which governs the committee's deliberations. Those who are personally cognizant of the work or who have participated in the meetings, are aware of the earnest effort made by those present to get at the real facts, and to render an equitable opinion.

The majority of cases are adjusted upon a basis arranged between the principals, but there are stubborn recalcitrants who refuse any adjustment, and will consent to nothing except their own unreasonable demands. When such cases are uncovered the customer is considered to be unfair, and notice to that effect is bulletined to our members as moral credit information; the name being retained in the official bulletin, unless subsequent adjustment is effected.

Having received the notice, an association member is expected to treat it precisely as he would any other credit information; that is, he exercises his own judgment as to the advisability of selling the man at all, or, if he sells him to what extent. No other method is possible. Any agreement understood or implied, not to sell a bulletined customer, would immediately run squarely against the Federal law relating to such matters; therefore, the member must decide for himself, whether, based on the evidence developed by the Trade Disputes Committee, which is furnished to him, he wishes to—

1. Sell the customer at all;
2. Sell him stock goods only;
3. Take the risk and accord the customer full confidence for all contractual relations; be it for stock goods, or goods to be manufactured.

Not only is this procedure legal, its fairness is apparent. Many customers appear before the committee, some of whom even get to be bulletined, whose relations with other selling houses in the market have been fair and satisfactory.

An Example

For instance, A may have for a period of years conducted a substantial and satisfactory business with B: it is uneconomic as well as illegal, to demand of A that he cease all further business dealings with B until the latter has adjusted some minor dispute with C.

But, what A *can* do, when such dispute is brought to his attention, and it is desirable that he do so, is to advise B that the presence of his name on the Association Bulletin as unfair creates a strong adverse moral credit influence, and suggesting that the matter be adjusted so that the record should be purged.

This course has been, and is pursued by many of our leading members with excellent and most helpful results—some even take the highly commendable attitude of offering to lend their assistance to obtain a fair composition of the controversy.

To sum up, the committee, while it may on cursory inspection appear to be without real force or power, actually has exerted a very material influence; this influence has demonstrated many notable results to date. It is still growing, and will continue to grow in proportion to the intelligent interest and co-operation of the association members.

Emphasis is given to this by the work accomplished during the past year. No less than 124 cases have been dealt with directly by the committee, only 15 of which have reached the Bulletin. In addition to those, are the much larger number of cases decided by indirect influence, when a simple indication that the dispute would be submitted to the Trade Disputes Committee has effected adjustment—many times after prolonged and stubborn refusal to settle.

Therefore, in concluding this report we feel that the facts above related justify the statement that the work of the Trade Disputes Committee is among the most important services of the association, and its influence in the trade is one that is daily felt.

Respectfully submitted,
H. E. Peabody,
Chairman.

Copy of Order Committee Report

YOU have before you the recommendations of your copy of Order Committee. The clauses are short and concise, and cover the essentials. They certainly are more up-to-date than those last recommended to you.

It is expected that each seller will consider with great care the headings on his Copy of Order. Particular attention is called to those sellers acting as agents. Be sure that your orders are taken as *agents* for the mill and that the size of type on the Copy of Order is such as to establish beyond question that the mill is the principal. In other words, have the name of the mill in more prominent type than yours as agent.

The six clauses recommended have been submitted to attorneys.

It is strongly urged that the new clauses will be favorably received and generally adopted and made part of your Copies of Order.

Respectfully submitted,
Robert T. Francis
George H. Williams
A. C. Buckley
Frederick T. Lawrence
A. D. Whiteside
Galen M. Harris (Chairman)
Committee.

Copy of Order Clauses

Recommended by Executive Committee of American Association of Woolen and Worsted Manufacturers:

Clause 1. It is agreed that this copy of order specifies the conditions of sale. Any modification must be mutually agreed upon in writing.

Clause 2. Seller shall not be held liable for late or non-delivery resulting from causes beyond control. Partial deliveries shall be paid for in accordance with contract.

Clause 3. Acceptance by a railroad or other carrier shall constitute delivery.

Clause 4. Claims will not be allowed nor returns accepted after thirty days from receipt of goods nor after merchandise has been sponged or cut.

Clause 5. Any dispute as to condition or quality of merchandise delivered shall be settled by the Mutual Adjustment Bureau of the Cloth and Garment Trades pursuant to the rules and regulations thereof.

Clause 6. This contract is subject to a limit or withdrawal of credit determinable at any time by the seller.

The Cloak and Suit Situation

By *Maxwell Copelof*

YOU doubtless want to hear a little about the year's activities in the women's wear lines, the activities of the year closing, and a few words about the prospects for the immediate future.

It is true that in the manufacture and sale of women's outer apparel, all the usual difficulties of other lines of business are encountered, plus the special problems of style, and most recently, an added problem, that of weather.

In looking back over the last year's happenings in the women's wear lines that I am connected with, the most important, the most hopeful and outstanding happening that I can recount is that of the acceptance of the practice of business planning; buying, selling and expense budgeting methods introduced into the business of so many firms in our lines, and the preparations for the introduction of scientific methods into many more coat and suit houses.

While it is true that there was a lot of grumbling, there are quite a few houses who are able to report a very good year. Many can justly give credit for their success to careful, conservative—I mean progressively conservative—business planning and execution. Several can thank the threat of the labor disturbance this early fall which enforced sensible business conduct that saved them or helped them make quite a bit of money.

Merchandising Changes

We are all aware how the retailers' business plans and execution of those plans upset very much the old methods of the production and distribution of women's coats and suits.

While exact figures are not available, I am reasonably certain that by far the largest amount of business in coats and suits is being done by houses who are known as stock houses—that is, those who can make immediate or very quick deliveries of the completed garments. The old line manufacturer is still, and will doubtless continue to fill, a very important part in the industry. He will continue to lead in the advancement of more or less ultra fashion. He will also supply the needs of firms who cater to special types of consumers, by far in the minority, but yet quite important. But his natural limitations of having to limit his style assortment, his price range, and having to take from two to eight weeks for delivery, makes it impossible for him to cover the needs of his customers, the retailers, as fully as can this comparative new comer into the industry—this merchant who until recently was misnamed "jobber"—but who is now known by his real title "stockhouse" or "wholesaler."

Now his importance is recognized by the

(a) Retailer, who patronises him to the tune of about half a billion—or maybe more.

(b) By the labor unions—who are trying to impose all sorts of burdens on him.

(c) By some 900 manufacturers who depend on the stock houses almost entirely for work to keep their plants and workers busy.

(d) By the mills—who find in the stock houses some very important sources of outlet.

(e) And last, but not least, the recognition extends to the stock house men themselves. They recognize their important position, and are preparing to put their business on such a basis as to render the most service and fill the permanent place which they have made for themselves in the industry in the very best manner possible to the advantage ultimately of the great American public, that we are all interested in serving well.

The Labor Situation

We have recently undergone quite an upheaval here in our relations with labor. Some of us believe that, through the instrumentality of the commission that the Governor appointed, and the introduction of important machinery to settle disputes, a way may be found not only to have peace prevail in the industry, but that we may learn to have genuine cooperation between the several factors in this important industry of ours.

That is, that there will be a working arrangement whereby the interest of the workers, the employers and the distributors will be properly safeguarded. Some even dare to suggest that the day will come when the other

important elements in the industry, that is the mill men on the one end, and the retailer on the other, will join with the rest of us in deliberations and find a way of dovetailing our functions, so that the greatest good will accrue to all, and forestall for a long time to come the possibility of any need for interference by any Government regulation or legislation.

If the industry is to prosper, and the men in it are to be given the opportunity for being of service, the retailer will probably find that he cannot continue to have reserve stocks from which to fill his needs and allow the practice of *bearing* the *market* to gain much headway. There is a great deal to be said in connection with this statement, but that is to be saved for a day when we can talk to the retailers.

By the same token it is true, that it is ultimately to the best interest of the mills *not* to *over-bull* the manufacturers by making them buy—and buy too much and too far in advance.

We should all encourage the laying out of buying plans, reasonable turn-over plans, and have each one of us carry part of the necessary burden.

The Copying Practice

One more thought I wish to express—there is a practice of copying in the trade, which many call an evil. Now, the entire trade thrives on what can be termed the desirable side of copying—that is to say, the adapting of types, both in the fabric and in the finished garments, during certain periods. The reproduction of fabrics and garments that are similar has resulted in bringing the business to its present size, thus enabling the American woman to be so well dressed at such a comparatively reasonable figure. It has enabled the person in moderate circumstances to dress as fashionably correct as her richer sister.

These adaptations have also helped and hardly ever harmed the originator or the leader who first introduced the vogue. But there is a phase of copying that is despicable—the practice of down-right piracy, which prematurely ruins the efforts and investments of the originator, and this practice hurts the fair-minded mill man and his fair customer—the cutter-up.

I have in mind a particular mill whose entire line, on which it had spent a large amount of money to produce, was copied exactly—even to the minutest detail, by another mill, thus injuring the interest of the first mill and the interests of many of its customers.

Would it not have been better if the copying mill had devoted a little time to originating types or adapting some of the designs and varying them sufficiently so that the efforts of each mill would be equitably protected and rewarded. The fact is, the pirates do not benefit from this practice as much as they think they do. There is continually going on an agitation amongst our fellow merchants not to ape their brothers and to *introduce individuality.*

I also hope that the mills will recognize the inevitable and will prepare to fit their activities into this new method of conservative buying by preparing reasonable quantities for quick deliveries; also manage to cooperate most with those of their customers who have shown a disposition to cooperate with them, by making reasonable provisions and anticipations of their wants.

One more concrete thought: The business outlook for next fall will require a good deal of caution. The present contract between the various elements in the industry expires just prior to the beginning of fall activities and the horizon will naturally look more or less cloudy.

Caution is advisable therefore.

The Men's Clothing Situation

By *William Goldman*

WHILE honored to receive an invitation to address you again this year, I could think of nothing that I might say to you at this time that would add to the stock of information of your membership. I thought that you were no longer concerned with what had happened or what is happening now; that if your interest was to be aroused at all it would have to be by something that had to do with the future. And as I thought about the matter I decided to give you a few random observations, and if I attempted to dignify these by announcing the subject of my remarks, I would call it "Speculation." Not speculation of the kind they indulge in in Wall Street, but speculation about raw wool.

The rise in the price of this commodity in the past six months in this country, and for a much longer period abroad, is quite unprecedented. Wool is now approaching war levels. Any light that we can shed on the continuance or duration of high prices for wool, or on the implications so far as our industries are concerned, of these price levels, is at least timely.

While the price of wool is based at this time on the foreign price plus the duty, I think it well to precede any consideration of the duration of high prices for wool by some examination of the character of the trade movement we have ahead of us in this country.

The one question that probably more business men are asking than any other at this time is not whether we are going to have a period of better business, but whether it is going to develop along the lines of all other similar movements of recent times in which the tide has been so strong as to sweep us into a period of intensive activity of short duration, during which there would develop further dislocation of the price level, followed by a slump, liquidation and stagnation. Or whether it is going to be a well sustained movement lasting for a considerable time, through 1925 and perhaps well through 1926.

I have specifically disclaimed any intention to enter the field of prophesy, but as one considers all angles of this question we must conclude that we have a far better chance this time of avoiding the excesses of recent forward movements; we no longer have any shortages created by the war; building and equipment are both well caught up.

We went through the World War with all of its enormous and extraordinary requirements, including the interruption of traffic, and we managed somehow to come through with an ample supply of practically everything. We went through that enormous movement of re-clothing the returning troops that took place in 1919, which gave us in all branches of our closely allied industries a period of activity and shortage of supply such as none of us had ever experienced in our history. And yet at the end of 1920 and the beginning of 1921 we awoke to the fact that there was two years' supply of wool in the world and new clips coming along.

Now, we haven't any reliable statistics in the wool trade as to the consumption of wool. We do know something about production, but we don't know what's on hand throughout the world; all of the information we get is fragmentary, many of the largest users of wool in this country do not report to the government; and the movements in raw wool are exceedingly difficult to analyze.

I began to make inquiries of woolen manufacturers and wool dealers as to what was responsible for this wool situation. From one I would hear that there was a great scarcity of wool in the world, and from another I would hear that it was the slaughtering of sheep at the time of the depression in 1921. From still another I would hear that the consumption of wool had been enormous; and the more I heard the more skeptical I became. I longed for the powers of a Conan Doyle that I might strip this situation of its camouflage. And one night I secluded myself in my study, determined I was going to think the thing through, and when I had thought it through I came down to my office the next morning, and I dictated the following story, which I shall entitle—"The Mysterious Disappearance of a Two Years' Supply of Wool in the World."

I realized my first problem was to determine how much the world's production of wool had decreased and how much its consumption had either decreased or increased during the same period. The former figures were available, the latter were not.

The average decline per year of the wool production of the world for the years 1921, 1922 and 1923 was about 11%. In other words, we lost a total of one-third of one year's wool production as the result of the curtailment created by the debacle of 1920-1921. For 1924 the figures are not yet available, but it is known that there was a substantial increase in wool production.

Now, what has been our consumption during this four year period—1921-22-23 and 24?

Sir Chas. Sykes, who is now in this country, was Director of Woolen Production for England during the war, and probably better than any other individual manufacturer in England was in a position to answer this question when I put it to him—What percentage of normal production have the English mills operated at, taking all classes of mills into consideration and good and bad years into consideration? After writing down the years and studying the matter for a few minutes, he wrote down 60%, and subsequently added "Well, make it 60 to 65."

On the same day I had an opportunity to talk to Mr. Kehrl of Cottbus, Germany, which is a woolen center, there being upward of 80 mills located in Cottbus. Mr. Kehrl was also exceptionally well informed, not only as to the German situation but the European as well. He gave it as his opinion that Germany had operated throughout the whole four year period at an average of 75% of normal.

Both Sir Chas. Sykes and Mr. Kehrl agreed that France and Belgium, from the end of 1922 until the present date had been working at practically full capacity; that business had been very bad in Czecho-Slovakia and Poland, that Italy had done well at the expense of the latter two countries in the Balkans, and at the expense of England in South America, but largely on cheaper goods, a big percentage of which are manipulated or contain cotton.

Japan has taken to wearing woolen clothing much more extensively and has consumed a great deal more wool than she ever used before the war. Just at present they are having a slowing down in their woolen trade.

In considering the question in our own country, we have had subnormal agricultural conditions for 3½ out of the 4 years. We have had one period of intensive activity for the entire industry which lasted from October, 1922, until April, 1923, in the past four years. But taking into account the bad business of 1921 and the first nine months of 1922, and the poor business that we have had since April 1923 until date, we are hardly justified in assigning more than 80 to 85% of normal production to the American woolen industries. It is to be said that during this period the woolen mills have made more virgin wool goods than they formerly did, but on the other hand those have displaced virgin wool worsteds.

But the figure that I put upon the consumption for the whole world for this full four year period—1921, 1922, 1923 and 1924—is 80% of normal.

And we know too that the wool

clips are going to be increased for next year, not only here but in all other important wool growing countries. The increase will probably not be less than 10%.

Now, if the world has been under-consuming 20% annually for the last four years, then obviously the accumulated savings must equal 80% of one year's world supply. So, if we have under-produced by 33⅓% of one year's clip and under-consumed by 80% of one year's clip, we have gained in supply almost one-half of one year's clip. Therefore, if we had two years' wool supply on hand in January, 1921, we must now have 2½ years' wool supply on hand and new clips coming along.

My reaction to the knowledge that I have just gained is that a two years' supply of wool in the world in the hands of the wool grower, the wool pool, the wool warehouses, in transit, in the wool auction rooms, in the hands of top makers, spinners, manufacturers, knitters and all the agencies that distribute wool, was a perfectly normal supply of wool to have, and that with the existing methods of marketing wool, is probably necessary. My feeling was not one of amazement when I discovered that there was more than two years' supply of wool in the world and new clips coming along. But on the other hand, it did answer all of the stories that I had been hearing about it taking us years to get back to where we can take care of the world's wool requirements.

But you hear it said repeatedly that there is an actual shortage of certain kinds of wools, that they are hard to get. How do I explain that if we have such a large stock of wool in the world? That to my mind is very readily explained. It may be that wool dealers are out of certain types of wool for one reason or another; here in this country we have had a strong tendency towards wool goods and away from worsteds; perhaps there is a greater demand for wools suitable for carding and less of a demand for wools for combing. Any number of reasons might be brought forward to explain that situation. But it doesn't mean at all that there aren't large quantities of even those badly needed wools in reserve in any of the great wool countries of the world, which will in due time come forward to meet the demand. The big Argentine clip is just beginning to come into the market. Other clips will be coming along.

With more wool in the world to-day than there was four years ago, when wool was selling for ¼ to ⅓ of its present price, why should manufacturers be tumbling over one another to buy it to-day at war prices? Why? Because they have got to go with the tide. This situation reminds me of the situation in overcoats for the fall of 1923, when the woolen manufacturers had to allot their overcoatings, and all the conservative manufacturers overbought themselves in order to be sure of getting what they wanted. And yet we overproduced overcoats in the year 1923 by at least 33⅓%, and a vast percentage of them were sold as distressed merchandise at the end of the year and early this year.

With wool at the existing price, even if statistical position was strong, I would be disposed to disregard it, because when statistics come in contact with psychology, psychology usually wins. And the psychology of the existing situation is that wool is no longer a speculative purchase. And when wool is no longer a speculative purchase it is a hand-to-mouth purchase for actual requirements. And what usually happens when hand-to-mouth buying begins is, first a pause, then a wobble, and finally a decline.

This is the end of the story of "The Mysterious Disappearance of a Two Years' Supply of Wool in the World."

I am ready however to agree that wool will undoubtedly continue at comparatively high levels for some time, and I now desire to ask your attention to some of the things, which, together with hand-to-mouth buying and impaired confidence, are going to help as we go along to bring it back into line.

In my address a year ago I pointed out that while the automobile, price resistance and the two pants suit had all operated to profoundly affect consumption over a period of years, the awakening to this fact in 1923 by the industry was misleading, because 1923 sales showed a marked improvement over 1921 and 1922, and the real trouble then was over-production caused by the tariff boom.

The automobile has wrought another change, that of a decreased use of the Sunday suit. The type of suit that has served to more nearly fill the bill for something to wear when working around or driving a car was a cheviot, flannel or cassimere suit, and it was bound to be one of these if it met the motorist's ideas as to price.

The sports tendency has fitted nicely into this scheme of things, and both the odd knickers and the four piece suits (consisting of trousers and knickers) have participated in a general plan of clothes economy.

It is my opinion that right now the worsted industry is suffering vastly more through inability to meet the price requirements of the trade than through any style tendency toward wool goods. And how much more difficult is the situation going to be under the new levels of raw wool prices? We can always manipulate wool goods, but there is no demand whatever for manipulated worsteds.

On top of the handicap already created by the price of wool the world over, the worsted industry has had superimposed upon it still another serious handicap in holding its own in competition with wool goods, and that is, the clean content duty of the present tariff. The worsted industry has never within its history heretofore had to operate under a tariff that was as hampering to that branch of the trade as the present tariff is. This tariff as you know fixes only one duty—31 cents on the clean content of all wools—and makes it unprofitable to import certain classes of light shrinking wools, which under former tariffs the worsted industry imported largely and used for their lower or popular priced fabrics that gave the worsted trade volume and the opportunity to share the business on moderate priced goods with the carded branch.

We always have considered that the relative proportions of productive capacity in the two branches of the trade were 60% for worsted and 40% for carded. It must be remembered that of the 40% carded a substantial percentage was devoted to overcoatings and cloakings. On the other hand, a percentage of the worsted production was devoted to women's dress goods. But undeniably, the big end of our cloth production is hit hardest by the high price of wool, plus the clean content duty. Obviously, anything that hurts the worsted industry must help the medium and better grades of wool goods.

Now let's examine the overcoating situation, because here a change is likewise developing. "An Overcoat for a Winter's Wear"— that gleeful slogan that was used in the early days of the brilliant hued fancy back to cheer the clothing man's heart, has had a good deal of the edge taken off of it lately. Many of the overcoat buyers now come from "Missouri." They want durable fabrics, and the retailer to-day no longer insists so strongly on the fancy back. Wearing quality is frequently his first consideration. He doesn't object to the fancy back, in fact in his whole purchase he would surely want a substantial representation of them, but it is no longer a prerequisite, whereas wearing quality is coming in for more and more attention. The box models in overcoats, which began to replace the ulster a year ago on account of the wide popularity of the sedan car, have grown into far greater popularity this year. The ulster type coat which had its vogue with the open car, and which consumed 10% more cloth, is going to be a much smaller factor in the whole overcoat production from now on. Overcoats will be made more and more as we go along, out of sturdy, long wearing fabrics.

Heretofore at the inception of a period of business activity it has been the practice of clothing manufacturers to stock up on staples, and the heavy buying thus engendered has usually resulted in sending wool to still higher levels. Let's go back to the situation of only two years ago, or the fall of 1922, when wool was rising steadily in response to the enactment of the tariff. The clothing manufacturers in the fall of that year not only bought all their staple serges, gray mixtures and the more staple fancy worsteds for the spring season, but they bought them for the fall as well, because of the levels of prices then ruling, and when the overcoatings opened early in 1923 they bought at least 50% more than they should have bought. And this accounted for the great activity that resulted in the woolen and worsted industry, that lasted from October, 1922 to April, 1923. At the present time staples are not selling. The clothing manufacturers are not going to load up as they did at that time.

This time there is a complete change in the situation. The clothing manufacturer has bought little or no merchandise on the basis of advanced prices. The bulk of the supplies for this spring season were secured at opening prices, and the volume of business booked for spring has not justified any large volume of duplicate business at advanced prices. The clothing manufacturer therefore instead of buying substantially on the way up, as he has done in the past, will have high wool prices right at the outset of the movement. In my opinion this condition exists when wool is probably at or near its highest price, rather than after a prolonged period of steady climbing. It is no doubt true that the woolen manufacturers have bought wools on the way up and that they will be able to average their prices on their fabrics for next season so as not to entirely reflect existing wool prices. But they will still be substantially higher than they were. This is going to create the opportunity for the clothing manufacturers to merchandise along sane and rational lines throughout this whole period of business activity, and need not at any time force a buying movement such as usually accompanies a movement of this sort in raw wool. Initial purchases for next fall, made in January and February, cannot possibly reflect any considerable expansion in trade. In other words, distribution can be based on consumption and speculative influences ignored.

The Credit Situation

By *A. D. Whiteside**

MAY I first eliminate from your mind the idea that I am about to express personal opinions? I am merely going to place before you facts, that have come to me, so that you may draw your own conclusions.

The subject is definitely divided into two parts: First—credits in woolens; second—the immediate future. Credits in woolens, I believe, means the credit condition of

(*Continued on page 170*)

* National Credit Office, New York

Editors
Charles H. Clark Vernon E. Carroll
Clarence Hutton Douglas G. Woolf

EDITORIAL

We Believe
in the Conservation and Protection
of Domestic Industries

The Scarcity of Long Staple Cotton

IF world spinner's requirements of domestic extra staple and longer domestic and foreign cottons were to approximate those of the season of 1919–20 we might expect prices of such cottons to duplicate the record breaking values touched during that boom. It is probable, however, that reduced consumption will approximately offset the reduced world supply although probable demand and supply are both so problematical at the moment as to render estimates of little value. It can be forecast with reasonable accuracy, however, that if demand was to be as large as it was last season the supply would be inadequate, and that unless shorter cottons can be substituted a further radical advance in prices will be inevitable.

We know that the Pima crop has been reduced to a few thousand bales, that the domestic Sea Island crop has gone, probably never to return, that the Delta crop of cottons longer than 1-3/16 inch has been radically reduced, and that the Egyptian Sakelaridis crop is not expected to be larger than that of last season. Even more disquieting are the apparently well confirmed reports that so much of the shorter and poorer Pillion is being mixed with Sakelaridis at the gins that the supply of straight Sak deliverable against futures contracts and type samples is being seriously restricted, and is largely responsible for the squeeze in shipment Sak that became acute during November and that is again being renewed.

In such an apparent emergency it is fortunate that the automobile tire trade is no longer demanding extra staples and other longer cottons and that demand for extra yarns and cloths requiring these long staples is more restricted than it has been for years, and, furthermore, that the tendency even in the latter is toward the use of shorter cottons, say from full 1-1/16 to full 1⅛ inch in length. It is unfortunate, however, that the supply of 1⅛ to 1-3/16 inch cotton has not increased in proportion to the increased size of the crop, which means that domestic spinners will have to get along with shorter cottons or make larger use of Egyptian Uppers. Quite as serious a feature of the situation for spinners is the fact that most buyers are unable to differentiate between the supply and price situation of ordinary cottons and that of the longer staples, and are delaying purchases and resisting advances that will look paltry later on.

* * *

The Other Fellow

THE American Association of Woolen & Worsted Manufacturers is not going to take any chances of becoming ingrown. Instead of assembling in star-chamber proceedings and adopting resolutions condemning the "other fellow," it gets the latter to its meetings and talks things over.

The cloak and suit manufacturer and the clothier are made a part of the program. This arrangement, in effect during recent years, shows its value more clearly each year.

* * *

Facts vs. Opinions

PRACTICALLY every textile meeting held during recent months has revealed a growing interest in the need of organized fact-finding in the textile industry. The meeting of the Textile Division of the American Society of Mechanical Engineers held on Tuesday of this week was no exception to this rule. Both engineers and manufacturers present dwelt upon the relation of such investigation to the profit factor of textile manufacture.

"Facts are facts; opinions may vary with what you have for dinner." This truism, quoted by one of the speakers, sums up the essence of this new line of thought. It was correctly stated that much of the so-called management work in the industry has been conducted on a basis of *opinion*—and that this has been responsible for its discredit.

Certainly no one can aid textile manufacturers in their search for facts more constructively than can the engineers. Facts are their stock in trade. It is encouraging to note that the work of the Textile Division has broadened and that plans for still further development in the future are underway. The local meetings of the division are an initial —and important—step in the right direction.

It is discouraging, however, to reflect that only about 75 men attended the meeting on Tuesday. Any one of the manufacturers present must have felt that the two addresses and the discussion which followed far more than repaid him for the time and expense involved. The A. S. M. E. meetings are too valuable to be closed sessions for engineers—nor do the latter want them to be such. It is only through free interchange of thought between the man with the mill and the man with the facts that engineers can be of any assistance to the industry.

The next meeting of the Textile Division should have an attendance of several hundred, including a large percentage of manufacturers. Mill men who have not given much thought to these meetings should take this as a good tip.

* * *

Why Not?

WANTED: A man who can develop a new textile which will appeal to the popular imagination as has the cross-word puzzle. Evidently the average man or woman is just waiting to be swept off his or her feet. Possibly, some genius some day will be able to "say it with cloth." Meanwhile turn to TEXTILE WORLD's textile cross word puzzle, the only one—we believe—in captivity. It's much more fun than an Edison questionnaire.

Training of Operatives

MANCHESTER is giving thought nowadays to the best methods of training operatives in the cotton industry. At a recent meeting a prominent manufacturer outlined steps which he believed should be taken when a new employe enters a mill. It is his opinion that the first step should be a trip through the mill during which all the processes are explained as simply and carefully as possible. This in turn should be followed by a quiet talk on the terms used in the mill and on the necessity of cleanliness, punctuality, etc. The next step would be the introduction to the overseer and to those operatives who were to be immediately associated with the new worker. Finally would come the actual instruction in the hands of a skilled teacher. In order to insure the maintenance of interest on the part of the operative the speaker suggested a rotation of workers among the different machines to relieve the routine monotony.

These suggestions are all of interest but there is another phase to this educational work which needs emphasis. This is the importance of education in simple economic facts. In other words it is believed by many that lack of cooperation on the part of employes is due not so much to technical inefficiency as to lack of sympathy with and knowledge of the industry with which they are connected. It was brought out by Eugene Szepesi at the A. S. M. E. meeting this week that one of the most needed developments was the presentation in simple language to the employes of facts regarding the cost of manufacture and the relation of the worker's effort to these costs and his wages. This is not a new thought, but it bears endless repetition. Many mills are trying to develop such a program, and others will doubtless find it to their advantage to initiate one.

Unfortunately there is no more difficult job in the world than the presentation of economic facts in easily understandable language. Many of the house organs have approached the subject in the right way and it is for this reason that TEXTILE WORLD during recent months has quoted particularly noteworthy articles from these publications.

The entire subject deserves careful thought on the part of the management of every textile mill.

* * *

The Power Show

AT the risk of being accused of exaggeration, the statement is hazarded that the Power Show held this week at New York was one of the most interesting and worth-while expositions ever held. No one can accuse the power field of standing still—and the show itself was a fitting record of the achievements made in this line.

A WORD OF CAUTION

"In visiting some of the important textile producing and distributing centers recently, I have been struck with the spirit of confidence which seems to permeate the trades," said E. T. Pickard, chief, Textile Division, Bureau of Foreign and Domestic Commerce, recently. "The consuming patient is developing a better appetite and everything points to a further improvement. One thing must be avoided, however, and that is forced feeding and accumulation of large reserve stores in anticipation of full recovery too promptly. The textile trades have gone through this same experience more than once, and it is hoped have learned the disastrous effects in trying to force recovery too quickly.

"It is far better to stimulate the appetite by slightly underfeeding than to suffer the risks of a relapse by over-dosing, however good the prospect and the prospects may seem. In other words, the ensuing weeks demand the cool, calculating judgment of producers and distributors in preventing a reoccurrence of an inflated boom, with the consequent disastrous effects well known by experience. Every interested factor ought to make it his business to see that overproduction and over-stocking is avoided."

Confer on Prison Goods

Group Meets Informally to Work for Solution

WASHINGTON, D. C.—Evidently with the hope that the Department of Commerce may endorse their contention that the product of prison labor should not be permitted to enter into commercial channels, representatives of textile and other industries vitally affected by the competition now offered by prison manufactures conferred Thursday with Secretary of Commerce Hoover.

The announced object of the conference, which was closed to the public and the press, was to advise Secretary Hoover what these industries believe the Commerce Department can do to assist all concerned in a practical solution of the prison labor problem admittedly existing today.

It was suggested to Secretary Hoover that the Commerce Department should investigate and present a report that for the first time would give the industries involved, labor organizations, state officials and legislators, and others a complete and authoritative analysis which would be of real service to all concerned.

Secretary Hoover was informed that what the industries desire is a report based on a study of the facts, presented in a simple, non-technical manner, following an investigation of the experience of all concerned in the problem, with recommendations looking toward a solution. It was urged that the Department's investigation should be undertaken as promptly as possible as the need was described as immediate.

The patent solution is declared to be restricting the product of prison labor to consumption in penal institutions or, in addition, possibly, to municipal use, but no intimation was made whether the Commerce Department would subscribe to this proposal. Secretary Hoover said that he must be assured, in the event that he decides to initiate an investigation of the effect of prison labor, of the cooperation of the men present at the conference, and the assurance was given.

The discussions at the conference were brief as it was assumed that all present fully understand the prison labor problem as it exists and that a solution, rather than any detailed statements of present conditions is what is needed. Should the Commerce Department decide to make the investigation it will be supplemented by a statistical report on the production and distribution of prison labor prepared by the Department of Labor that soon will be off the press. A similar report was published by the Department of Labor last year.

Adjournment of Conference

It was announced following adjournment of the conference that Secretary Hoover will name a committee to supervise the investigation requested, including in its membership representatives of organized labor and public bodies representing consumers. The National Association of Cotton Manufacturers was represented at the conference by H. C. Meserve of Boston, secretary of the National Council of American Cotton Manufacturers. The Association of Cotton Textile Merchants was represented by Julius W. Cone and S. F. Dribben of the Cone Export & Commission Co., Greensboro, N. C., Gerrish H. Milliken, Deering, Milliken & Co., New York and P. S. Newell of New York. The International Association of Garment Manufacturers was represented by A. F. Allison, of New York, secretary, Ralph Hunter, of Hall, Hartwell & Co., Troy, N. Y., S. J. McCawley, McCawley & Co., Baltimore, Carey E. Quinn, of Washington, and Stanley A. Sweet, of Sweet-Orr Co., New York.

Chicago Exchange Opens

Trading Started on Board of Trade Floor

Trading in cotton futures on the floor of the Chicago Board of Trade was formally inaugurated on Monday of this week. The first transaction was made by President Crosswell of the Houston Cotton Exchange who sold 100 bales to Frank L. Carey, President of the Chicago Board of Trade.

Some question has arisen as to the normal difference which should exist between prices of futures on the Chicago, New York and New Orleans exchanges. An authority in the New York trade explained this week that prices made in Chicago cover delivery in Houston and Galveston and not in Chicago. He added that there is no recognized parity between quotations on the three exchanges but stated as a general observation that prices quoted on the New York and Chicago exchanges, for example, should maintain about the same parity as the difference between the price of middling in New York on the one hand and Houston and Galveston on the other—and that the same comparison should hold true in the case of New Orleans and Chicago.

As far as the effect on the New York Cotton Exchange is concerned, the following statement was made by Leigh M. Pearsall, a member of the Board of Managers of the latter body:

"As was anticipated, the inauguration of cotton trading on the Chicago Board of Trade today had no perceptible effect upon the volume of business or prices on the New York Cotton Exchange. It has taken the New York Cotton Exchange 50 years to perfect its machinery for the handling of cotton and it was not expected that the opening of a new market, far removed from the South, would have any effect upon the business in New York.

"Chicago, of course, is not a natural cotton market, and cannot be expected to trade without using New York or New Orleans prices as a basis for transactions. There would seem to be no good reason why mills or banks, other than those in Texas, perhaps, should hedge cotton in Chicago. The Chicago contract is peculiarly a contract for Gulf cotton, which has always sold at a premium. I can see how it might be useful to the cotton trade in Texas, but not in other States."

TEXTILE CALENDAR

Associated Knit Underwear Manufacturers of America, Semi-Annual Meeting, Utica, N. Y., Dec. 10-11, 1924.

Philadelphia Textile Manufacturers Association, Bi-Monthly Luncheon, Bellevue-Stratford Hotel, Philadelphia, Dec. 10, 1924.

Silk Association of America, 53rd Annual Dinner, Hotel Astor, New York, Jan. 10, 1925.

National Wholesale Dry Goods Association and Auxiliaries, Annual Meetings, Waldorf-Astoria, New York: Wholesalers' Association of Knit Goods Buyers, Jan. 19, 1925; Wholesalers Association of Dress Fabric Buyers, Jan. 19-20, 1925; Annual Convention of Parent Association, Jan. 20, 1925; Annual Dinner, Jan. 20, 1925.

National Merchandise Buyers Fair (including "Made in America Textile Exposition") Grand Central Palace, New York, Feb. 7-14, 1925.

Committee D-13, American Society for Testing Materials, Spring Meeting, Providence, R. I., March 6-7, 1925.

Knitting Arts Exhibit, Commercial Museum, Philadelphia, April 6-11, 1925.

National Association of Hosiery and Underwear Manufacturers, Annual Convention, Bellevue-Stratford Hotel, Philadelphia, April 8, 1925.

First Chemical Equipment Exposition, Auspices of Chemical Equipment Association, State Armory, Providence, R. I., June 22-27, 1925.

American Society for Testing Materials, 28th Annual Meeting, Atlantic City, N. J., June 22-26, 1925.

PIEDMONT COCOON CROP

The silk cocoon crop for Piedmont, Italy, during 1924, amounted to 10,779,736 lbs., valued at 102,559,870 lire (lire = $0.0432 at current exchange), compared with 18,700,000 lbs. worth 276,369,000 lire in 1923. This decrease of approximately 40% in the production of silk is said to be due to the unfavorable weather conditions, according to Consul Sycks, Turin.

Basis for Inventory Not Less than Cost

WASHINGTON, D. C.—The appeal of the Ewing-Thomas Converting Co., of Chester, Pa., on a question of inventorying cotton yarn, was dismissed by the Board of Tax Appeals on Monday. The issue raised is whether the company might take its inventory at the close of 1919 at less than cost and at less than market prices when it was under binding contracts to sell an equivalent amount of mercerized yarn at prices less than cost and less than the market prices at the close of the year. The Board held that the firm could not inventory yarn on hand at the close of the year of a quality suitable for manufacture to fill its contracts, but not specifically appropriated to such contracts, at less than cost.

Canada to Import U. S. Rams

TORONTO, ONT., CANADA.—It is learned at the head offices of the Canadian Woolen Manufacturers' Association that Alberta sheep range men have arranged for the shipment of 400 Rambouillet rams from the United States. The rams will be provided with a harem of 20,000 western range ewes and will increase the size of the clip and the quality of wool grown in Canada. This enterprise, it is pointed out, is important as the sheep population of the entire world has declined.

PHILADELPHIA, PA. The Norma Knitting Co., 3rd and Huntingdon streets, manufacturers of full-fashioned hosiery, is being liquidated and the machinery and equipment sold. This concern operated 20 full-fashioned machines, 5 loopers and 5 seamers. A large part of this equipment has been sold to another hosiery mill in this city, the name of which will be announced in the near future. After the machinery has been sold the Norma Knitting Co. will not resume operations. The officers are Elmer D. Wilt, president; Elmer K. Schultze, vice-president and T. C. Siedentopf, secretary, treasurer and general manager.

A.S.M.E. Textile Division Holds Annual Meeting

Two Valuable Papers Presented—Robert E. Naumburg Speaks on "The Development of the Spinning Frame"—Paper on "The Engineer's Field in Industrial Economics," by Eugene Szepesi—Both Papers Draw Out Wealth of Discussion—George H. Perkins Elected Chairman

TWO papers of widely differing character, but each of vital importance in connection with the progress of the industry, featured the annual meeting of the Textile Division of the American Society of Mechanical Engineers held at the Engineering Societies Building, New York, Tuesday of this week, in connection with the annual meeting of the society itself.

Before entering upon the formal program, George H. Perkins, textile engineer of Boston, who as vice-chairman occupied the chair in the absence of Sidney B. Paine, reviewed briefly the broadening scope of the work of the division and outlined the plans for the coming year. Local meetings are to be held in Philadelphia, New York, Worcester, Boston, Lowell, Houston and New Orleans.

Development of Spinning Frame

Although the paper on "The Development of the Spinning Frame" presented by Robert E. Naumburg, head of the Patent and Research Department of the Saco-Lowell Shops, Lowell, Mass., was of different character from the addresses usually prepared for meetings of the division, it proved to be of a type which promises real benefit to the society and the industry. Historical in nature, it presented a valuable and permanent record of the development of the art of spinning. Its usefulness is, however, more than historical since it enables inventors and other investigators to avoid duplication of past efforts and also points the way to future possibilities in the art.

The author traced chronologically the development of the spinning frame from the earliest periods of history to the present, pointing out the significance and value of each invention in relation to the general growth of the art. The subject-matter was carefully divided in its treatment of the component devices of spinning machinery and was illustrated by lantern slides showing the various important inventions, largely based upon Patent Office records. Mr. Naumburg's paper will be covered more fully in the Technical Section of a later issue of TEXTILE WORLD.

Discussion of Paper

The informal discussion of this address was preceded by the reading of two prepared letters on the subject. One from Robert H. Gaither, of Brooklyn, N. Y., pointed out that while in other industries it has been found possible to combine various operations and eliminate intermediate steps, this has seemed a closed road in spinning thus far.

The other letter, which had been written by Charles F. Merrill, head designer of the Draper Corp., Hopedale, Mass., was read by Mr. Merrill himself and paid a tribute to the high character of Mr. Naumburg's paper. The speaker stated that textile machinery has not received the attention that it deserves. Mr. Merrill believes that we have passed out of the period of essential inventions and must now look more to possibilities in refinements of handling materials and in the adaptation of new materials. In this he stated, the engineer is needed as are also the chemist and metallurgist. He spoke particularly of the problem of the spinning ring and the traveler and stated that all attempts to improve this phase of the spinning frame have failed to receive general support. He believes that the recognition of the importance of the entire subject by the Textile Division should prove of real assistance in the future.

George H. Perkins, Elected Chairman, Textile Division, A. S. M. E.

Sidney B. Paine, Retiring Chairman, Textile Division, A. S. M. E.

James W. Cox, Jr., textile engineer, of New York, secretary of the division, joined in the discussion by remarking that the greatest prospect of advance seems to have rested in the proper utilization of existing machines and in refinements which will produce a better grade of yarn from lower grades of cotton. He hopes however that the man from the outside will come into the industry with suggestions for radical improvement. He feels that these outside engineers should be enlisted in the work because they will look at the problem from a new viewpoint while those inside the industry are limited too closely by contact with the handling of the machinery and conditions around the machine.

Henry M. Burke of the Mount Hope Finishing Co., North Dighton, Mass., pointed out that the Textile Division might very well take up the subject of depreciation. He believes that it would be possible to consider all types of textile equipment, listing the average life, the depreciation and the wear and tear, and he feels that not only will this bring about refinements of machinery as an aftermath but will also be of direct monetary value to individual companies who are not now allowed depreciation by the Government on a scientific basis.

Engineers and Economics

In introducing his paper on "The Engineer's Field in Industrial Economics," Eugene Szepesi, of the Szepesi Industrial Organization, Boston, pointed out that the basic idea of real management methods is to measure human effort in co-relation to mechanical performance and he urged all engineers to give some thought to this problem of measuring efforts and putting them in tangible form that can be appreciated. He feels that the field of economics is not the privilege or duty of a few but belongs to all of us, including engineers, and he suggested that the latter should make every effort to achieve better production and better control of methods. Emphasizing the fact that the finished product is the combined result of machinery, materials and human effort, he stated that therefore all these three factors must be shown in any graphic record. Mr. Szepesi then followed with actual examples of control and planning, illustrating these by means of the lantern. They were all excellent practical applications of engineering principles to economic problems in the textile industry. This paper will be covered more fully in a later issue of TEXTILE WORLD.

Discussion

In opening the general discussion, McRae Parker, engineer with the Cleveland Worsted Mills Co., congratulated Mr. Szepesi upon his paper, stating that graphic programs such as outlined were the most difficult things in the world to develop, particularly in woolen and worsted mills where there is such a diversity of styles. He agreed with the speaker that profits to a large extent may be made or lost in the mending and that consequently many manufacturers are finding it necessary to look back of the mending department and devise ways to eliminate faults. He believes that more mechanical engineers should invade the textile industry and develop work similar to that done by Mr. Szepesi.

Mr. Burke asked Mr. Szepesi if the mechanical engineer might not help in the elimination of idle time of equipment. Mr. Szepesi admitted that this is of vital importance because the burden cost is going to be governed by the amount of machinery running; and he outlined a few ways in which this factor could be checked. Mr. Burke replied that he believed there is still room for much more scientific study of this whole question and that such matters as lubrication, for example, should be considered in connection with it.

F. A. Flather, treasurer of the Boott Mills, Lowell, Mass., in joining the discussion and presenting the manufacturer's viewpoint, took his cue from the phrase "provided you have orders" which occurred in one of Mr. Szepesi's remarks. That, he stated, is what interests the manufacturer most and he and other mill men believe that the engineer can show them how to get orders if he will. He added that the engineers have not yet awakened because they have not found how to overcome a labor differential of 25% against New England manufacturers. Mr. Flather believes that if the mills could be shown how to manufacture at 10% higher efficiency, the cotton mills of Massachusetts would continue to exist and he asked the engineers to give thought to the ways in which this increased efficiency could be realized for everybody in the textile organizations from the president down to the man at the machine.

Charles T. Plunkett, president of the Berkshire Cotton Mfg. Co., Adams, Mass. agreed with Mr. Flather that the mills needed most from the engineers their assistance in plan-

ning machinery operation, developing schedules and shaping markets so that they might continue operation and meet the adverse circumstances such as faced today in Massachusetts. Speaking personally, he stated that he is not one who has been stampeded by this matter of southern competition. He admits that the South has certain advantages but also sees other disadvantages. He feels that if the wage differential could be reduced to, say, 10 or 15%, New England mills would be able to compete with the southern plants, and consequently he too agreed that the problem for the engineer to solve is how to effect this 10% increased efficiency.

Mr. Cox pointed out that systems of management in the textile industry have often been discredited because they have been based upon opinions and not facts. "Facts are facts," he quoted; "opinions may vary with what you had for dinner." He stated that often an accountant would enter a plant, secure certain opinions from the management and base his whole program upon those opinions. On the contrary, he stated, Mr. Szepesi's work was based on facts. Mr. Cox has seen mills where the proper application of facts, not opinions, so improved production in all ways as to lift it from loss to financial soundness.

In summing up after this discussion, Mr. Szepesi stated that it is possible to reduce the amount of non-productive labor by applying mechanical means of moving material and by getting the cooperation of the employe. He believes that if mill men will go to the workers and give them facts regarding cost of manufacture and other economic truths in simple language, much will have been accomplished in securing their goodwill. In other words, he feels that it is more a psychological than a mechanical problem.

F. S. Blanchard, assistant to the treasurer of the Pacific Mills, was also present and joined in the discussion of Mr. Szepesi's paper.

A Modern Hosiery Plant

Another textile paper presented during the annual meeting of the Society was one entitled "The Development of a Modern Hosiery Plant," by Sanford E. Thompson, of the Thompson & Lichtner Co., Boston, and H. T. Rollins, president of the Rollins Hosiery Mills, Des Moines, Iowa. This valuable paper was read at the meeting of the management division on Thursday and will be covered in the Technical Section of a later issue of TEXTILE WORLD.

Election of Officers

At a meeting of the Executive Committee of the Textile Division held Tuesday, the following officers were elected for the coming year: Chairman, George H. Perkins, textile engineer, Boston; vice-chairman, James A. Campbell, Rockland Finishing Co., Garnerville, N. Y.; secretary, James W. Cox, Jr., textile engineer, New York. In addition to the chairman and vice-chairman, the Executive Committee includes Sidney B. Paine, General Electric Co., Boston; F. A. Flather, Boott Mills, Lowell, Mass.; Henry M. Burke, Mount Hope Finishing Co., No. Dighton, Mass.

Power Show True Record of Noteworthy Progress

Exhibits Feature Developments Achieved in Connection with Generation and Utilization of Power—Third National Event—Interesting Program of Lectures and Moving Pictures—Large Number of Engineers and Industrialists Attracted to Grand Central Palace

THE success of any exposition depends very largely upon the flexibility of the industry or cross section of industry which it represents. The more static an industry becomes, the more difficult it is to portray through annual expositions an interesting story, and the more monotonous are such exhibits likely to become. The field of power and its applications seems to be one of the most fertile industrial cross sections for graphic exhibition, if one may judge from the success of the Third National Exposition of Power and Mechanical Engineering held all this week at the Grand Central Palace, New York.

In this field there is flexibility personified. Each year, more or less revolutionary changes are taking place in power methods, and even today, when so much seems to have been accomplished in the way of modernizing processes, the whole power field is in a state of flux. For this reason no industrialist can afford to miss any one of the many noteworthy developments taking place. For the same reason, the show itself, now an annual institution, has become one of the successful expositions of the year. It portrays one of the living, active industries—and after all that is news. Any handicap which a cross section exposition may theoretically be supposed to suffer as compared with the exposition of a specific industry is counteracted, in the case of the Power Show, by the activity it represents.

This show has been featured "as a clearing house of information about the recent developments in power and mechanical engineering." Certainly this year's show lived up to such a description. It was no mere assembly of steam specialties and other stereotyped parts; it was instead an interesting record of the progress made during the last year. Anyone who has visited all three shows cannot fail to have been impressed with the new developments which each exposition in turn has featured.

Scope of Show

This year's show occupied three floors of the Grand Central Palace with more than 350 individual exhibits and 150,000 sq. ft. of floor space. To the visitor it seemed almost as if the various exhibitors had gotten together in advance and had planned a unified display which would leave no stage of progress untouched. Possibly that is the best tribute which could be paid to the show. It gave the impression of being a 100% business exposition and the character of attendance seemed to be 100% interested in the exhibits. This was aided by the fact that the annual meeting of the American Society of Mechanical Engineers and the meeting of the American Society of Refrigerating Engineers, both of which were held in New York this week, attracted large numbers of engineers to the city who naturally visited the show.

It is impossible to give in any detail the products exhibited at the Palace because this would consist of listing practically every kind of equipment and device used in the power field. A few of the high lights however were such features as the use of pulverized coal, the improvements in oil-burning methods, the marked developments in mechanical handling of coal and ashes, and the extensive use of new metals for various purposes.

Another general feature of interest was the historical exhibit showing the development of the machine tool industry, under the direction of Prof. Joseph W. Roe, of New York University. Still another high light was the space occupied by the National Museum of Engineering & Industry, which illustrated graphically the attainments in the uses of coal. Incidently the statement made by one of the exhibitors, that the effect of the utilization of coal by-products was to relieve the cost of living $20 per capita per year attracted general interest.

Other products exhibited included the following: Boilers, stokers, superheaters, economizers, air preheaters, prime movers, pumps, condensers, valves, control apparatus, measuring instruments, material-handling equipment, transmission equipment, such as ball bearings, clutches, belting, etc., machine tools, refrigerating machinery, heating and ventilating equipment, etc., etc.

Lectures and Films

Two added features of the exposition were a series of lectures by prominent men on subjects of vital interest to engineer and power specialists, and an elaborate program of films of general engineering and industrial interest.

The exposition was administered by the International Exposition Co., the managers of which are Fred W. Payne and Charles F. Roth.

TEXTILE BALANCE OF TRADE

Manufactures of —	October, 1924	October, 1923	10 months ended Oct., 1924	10 months ended Oct., 1923
IMPORTS				
Cotton	$7,960,285	$7,624,486	$74,784,388	$83,088,311
Wool	5,062,814	4,909,493	43,516,838	49,636,597
Silk	4,909,490	4,293,567	33,494,301	37,549,069
Rayon	690,840	1,110,082	4,485,430	9,178,003
Jute	5,348,203	5,005,445	54,495,020	64,300,471
Flax, hemp and ramie	5,178,785	4,009,332	44,020,334	36,254,857
Total imports	$29,150,417	$26,949,405	$254,796,311	$280,007,308
EXPORTS				
Cotton	$13,530,699	$11,703,898	$109,734,105	$116,566,304
Wool	584,362	634,297	5,009,666	6,499,591
Silk	1,335,936	903,093	12,230,077	9,783,873
Rayon	874,388	337,972	6,484,607	5,945,485
Jute	517,745	179,496	3,490,364	1,702,255
Flax and hemp	36,609	29,538	349,099	280,185
Total exports	$16,879,699	$13,788,094	$137,297,918	$140,777,693
Excess of imports over exports	$12,270,718	$13,161,311	$117,498,393	$139,229,615

Manager for Maverick

E. M. Barrett of Framingham, Mass., has been appointed general manager of the Maverick Mills, East Boston, Mass., succeeding A. Clinton Swift, and Walter H. Paige of New Bedford succeeds I. W. Curtis as superintendent. Mr. Swift and Mr. Curtis commenced their new duties with the Sharp Mfg. Co., New Bedford, Mass., on Monday.

Blankets Up 5 To 10%

All Wool Goods Show Greatest Change at Opening

Active commitments for next year mark the opening of the new blanket lines of leading manufacturers. Many of the new lines are distinctive for their varied colors and patterns and improved quality and finish.

All wool blankets are 5 to 10% higher than a year ago. Cotton and wool mixed blankets show little revision, except where wool is the larger content, and then prices are somewhat higher. Several lines are reported more than half sold on their 1925 production.

Among the manufacturers who have already opened or will do so in the next week or ten days are F. H. Cabot & Co., Chatham Mfg. Co., Northern Textile Co., Pierson-Libby Co., Amory, Browne & Co., Clarence Whitman & Sons, Dorman Commission Co., S. Stroock & Co., Daniel W. Farnsworth, Covert & Workman and the American Woolen Co.

Staples are still the feature of the F. H. Cabot & Co., though some plaids and other fancies also are stressed. The popular sizes in doubles are 66x80 and 70x80, with singles 60x80. Prices range from $8 to $30 on the all wool doubles, and $3.85 to $7.80 for cotton-wool mixed, regular fall dating. Cotton mixed numbers show but slight change in prices compared with a year ago, but all wool blankets are 7½ to 10% higher.

The Pierson-Libby Co.'s Golden Fleece line features jacquard patterns in both the regular 66x80 and 70x80 sizes as well as in the singles and crib numbers. Prices range from $2.40 to $3.80 for singles, and $3.60 to $7.50 on doubles. While the whole line is cotton-wool mixed, those having a larger proportion of wool content are 5 to 10% higher than a year ago, with the low ends approximately around the same levels.

The Northern Textile Co. has booked good business on Leaksville Mills' "Lucerne," which opened at $3.35 for a 4¼-pound 68x80 plaid, compared with $3.27½ for a 4-pound 66x80 a year ago. Thus, while the price is up 7½c., the blanket actually is cheaper on a poundage basis. Their all-wool blankets will be shown next week.

The Chatham Mfg. Co. has added three new numbers, a single all wool number in solid colors, a high grade all wool number featuring plaids, and a plaid and white line containing high grade Australian wool filling and cotton warp. Cotton-wool mixed blankets are priced from $3.75 to $5.50, with some fine wool numbers up to $15; and all wool blankets from $6.10 to $9. Colors predominating in the solid pattern are old rose, helio, powder blue, a lighter blue, tan, white and gold, sateen binding being added where desired. The prices are approximately the same as a year ago on low end goods, 3 to 5% higher in the case of high wool content and up 5 to 7½% on an all wool basis.

North Carolina Mill Men Meet

Association Adopts New Mill Rules Opposed to Frequent Crop Reports

PINEHURST, N. C.

REVISED and standardized rules governing the purchase of cotton and a resolution protesting against the Government's issue of semi-monthly cotton reports were adopted

E. C. Dwelle, President, Cotton Manufacturers Assn. of North Carolina.

at the fall meeting of the Cotton Manufacturers Association of North Carolina in session here Friday and Saturday.

Taking its position for a change in the Carolina mill rules of 1915, the association held that the 1915 rules were in many instances obsolete and as a result indiviual mills had adopted rules for their own use, thus causing marked confusion. The new rules were not radically changed but were simply brought up to date and made to apply to present conditions. In addition to applying to North Carolina the rules will apply to South Carolina, Georgia, and Alabama, the Associations of which are said to approve the new regulations and expect to formally adopt them. The revised pamphlet is known as the "Southern Mill Rules of 1924."

Declaring that the new crop reporting system adopted by the Government, while intended to benefit the farmer and manufacturer is really causing confusion and interrupts the normal operation of supply and demand by erroneous and misleading reports, the convention adopted the following resolution of protest:

"Whereas the Congress of the United States has enacted a bill, providing, among other things that the Department of Agriculture shall make and publish semi-monthly cotton crop estimates, during certain months, and

"Whereas this association feels so strongly that the practice of the Government in issuing these semi-monthly cotton crop estimates, this season, has had such an injurious effect on the textile industry and business in general, especially on account of the frequency of issuing such reports, therefore be it

"Resolved, That this association enters vigorous protest against the continuance of the practice of issuing these semi-monthly cotton estimates, and requests that the law be changed so that such cotton crop estimates be issued monthly instead of semi-monthly and that these estimates be issued on some other day than Saturday.

"Resolved, Further, that a copy of these resolutions be transmitted to each senator and representative in Congress from North Carolina and given to the press."

Another resolution protesting against the Federal education bill "which would, under the disguise of Federal aid, give the Federal bureau control of education in several States" was also adopted.

A resolution of respect for the memory of S. C. Vann, of Franklinton; John M. Knox, of Salisbury; John C. Smith, of Shelby, who died during the year, was spread on the minutes of the association.

Georgian President Attends

One of the visitors at the convention was George S. Harris, of Atlanta,

S. F. Patterson, First Vice-President, Cotton Manufacturers Association of North Carolina.

president of the Georgia Cotton Manufacturers Association, who was introduced and who spoke a few words of appreciation.

David Clark, of Charlotte, N. C., declared that proponents of the Federal Child Labor amendment to the constitution are spreading misleading information regarding the labor of children in southern cotton mills. He stated it as a fact that there are now only 21 children under 14 years of age working in southern cotton mills. And these will not be working long, he added.

Dr. E. C. Brooks, of Raleigh, president of the Northern Carolina State College, was a visitor, speaking briefly on the cotton crop bulletins.

Asheville was selected as the place for the summer meeting, which will be held around July 4.

About 200 textile manufacturers and members of their families attended the convention. Golf for the men and bridge for the ladies made up the entertainment program. The convention banquet was held at the Carolina hotel Friday night. The speaker was Dr. W. H. Frazer, president of Queens College. E. C. Dwelle,

Hunter Marshall, Jr., Secretary-Treasurer, Cotton Manufacturers Association of North Carolina.

president of the association, was toastmaster.

The financial report of the association was made by Hunter Marshall, Jr., of Charlotte, secretary-treasurer. George W. Forrester, of Atlanta, traffic manager, said that the railroads had agreed to reduce rates in order that the Georgia scale would apply to North Carolina. He also gave promise of other reductions.

Officers of the association are E. C. Dwelle, Charlotte, president; S. F. Patterson, Roanoke Rapids, first vice-president; J. M. Gamewell, Lexington, second vice-president; G. C. Hill, Winston-Salem, third vice-president; and Hunter Marshall, Jr., Charlotte secretary-treasurer.

J. M. Gamewell, Second Vice-President, Cotton Manufacturers Association of North Carolina.

CONDENSED TEXTILE ITEMS

Response to "Made in U.S.A." Exposition

Encouraging response has been noted to the newly-inaugurated "Made in U. S. A." Textile Exposition, to be held in conjunction with the National Merchandise Buyers Fair in Grand Central Palace Feb. 7 to 14, 1925. The combined display will be one of the largest of the year, occupying the entire exhibition floors of the big building. The National Merchandise Buyers Fair will be held under the auspices of the National Retail Dry Goods Association and the National Council of Traveling Salesmen's Associations.

A number of the leading textile producers and selling-agents of the country have already taken space and these concerns are at work planning their exhibits for the concerted effort that will be made to give American products a dominant position in the domestic market. Other firms have the matter under consideration.

* * *

Underwear Manufacturers to Meet Next Week

A full program is scheduled for the semi-annual meeting of the Associated Knit Underwear Manufacturers of America, to be held on Dec. 10 and 11 at Utica, N. Y. Prior to the meeting, that is on Tuesday, Dec. 9, there will be meetings of the Style Committee, Standardization Committee, Advertising Committee and Executive Committee.

One of the most important matters to be considered is that of standardization. The Standardization Committee will decide upon its recommendations for standard measurements for men's 1x1 ribbed union suits some time during Tuesday and these will go to the Executive Committee in the evening. The whole discussion will be brought before the general meeting on Wednesday. A large attendance at the convention is anticipated.

* * *

Silk Men Planning for Annual Dinner

Plans for the 53rd annual dinner of the Silk Association of America, which will be held at the Hotel Astor, New York, on Jan. 10, are progressing and the Dinner Committee promises to introduce this year some new features which will add greatly to the zest of the occasion. It is expected that the dinner this year will surpass those of previous years in attendance.

The committee is composed of Joseph Gerli of E. Gerli & Co., Inc., chairman; Henry W. Boettger of the Silk Finishing Co. of America; J. E. Fox of the Susquehanna Silk Mills; James A. Goldsmith of Hess, Goldsmith & Co., Inc.; F. Irving Hanson of H. R. Mallinson & Co., Inc.; Thomas B. Hill of J. H. & C. K. Eagle, Inc.; and John J. Twohey.

* * *

Phila. Worsted Overseers' Dinner

The Managers' and Overseers' Provident Society of Philadelphia will hold their 39th Annual Banquet in Lu Lu Temple, Broad and Spring Garden Streets, Saturday evening, Dec. 13. This society is composed of overseers and superintendents actively engaged in the manufacture of worsted yarns.

* * *

Applications for Space at Next Southern Textile Show

GREENVILLE, S. C.—Applications for space at the Seventh Southern Textile Exposition to be held here two or three years hence, have come in so rapidly that officials of the hall are figuring on just how large another annex will have to be erected in order to take care of the overflow from the hall. W. G. Sirrine, president of Textile Hall, said recently that plans for the big show were going quietly forward and that the affair would be as much larger than the last show as that one was ahead of earlier expositions.

"One thing pleases me greatly," said Mr. Sirrine, "and that is the fact that various southern cities are already offering their cooperation in putting on the next show."

The tax problem faced by Textile Hall corporation, which involves city and State taxes owed to the extent of nearly $13,000, is a serious one, it was said. However, this will be worked out in some manner and the exposition—bigger and better than ever—will be held here again.

Mr. Sirrine said that Atlanta organizations had already offered their cooperation in putting on the next exposition in Greenville and said that he expected the same cooperation would be forthcoming from Charlotte, Richmond and other cities.

* * *

Manchester and U. S. Crop Estimates

MANCHESTER, ENG. — At the monthly meeting of the Manchester Cotton Association recently held, a discussion took place concerning the U. S. Government's policy in issuing this season semi-monthly reports relating to the condition of the growing American crop compared with monthly reports in past seasons, and it was decided that representations should be made to Washington urging that department to revert to the custom of previous years of issuing one condition report monthly as the more frequent issue of these reports has tended to accentuate unsteady cotton markets interfering with the consummation of business in yarn and cloth, which is equally detrimental to the interests of the cotton grower, the spinner and manufacturer.

The Association has received a letter from the U. S. Department of Agriculture stating that the department is now beginning an investigation into the matter of baling and marketing of American cotton, to see if it cannot be possible for the baling of American cotton to be equal to that of other countries.

* * *

Philadelphia Manufacturers to Meet December 11

PHILADELPHIA.— A bi-monthly luncheon meeting of the Philadelphia Textile Manufacturers' Association will be held at the Bellevue-Stratford Hotel, Dec. 11, at 12.30 P.M. The principal speaker will be the Hon. Franklin Spencer Edmonds, State representative, who will speak on "Corporation Taxes in Pennsylvania," a matter of importance to all manufacturers in this State as the next legislature will have this matter before it. Members of this Association have been active in this regard and several members have been called upon to render the legislative committee assistance in gathering information upon the subject. A platter luncheon will be served and those attending are promised an instructive meeting which is limited to one hour.

The following committee appointments for the coming year have been made:

STANDARDIZATION
Conyers Read, *Chairman*
William J. Wall — Willis Fleisher
Stanley R. Stager — W. H. Rossmaessler

COSTS
Joseph Randall, *Chairman*
G. C. Aberle — O. B. Kiesewetter
H. Lonsdale — Franklin P. Knipe

EMPLOYMENT
Frank Foster, *Chairman*
C. B. Bennett — Ernest R. Townson

INVESTIGATIONS
R. A. Lukens, *Chairman*
J. H. Felton — Henry Weigand

MEMBERSHIP
Simon Miller, *Chairman*
E. E. Brown — M. G. Curtis
George S. Cox — J. T. Eastwick
H. M. Gwyn — Joseph A. Sommer
W. J. Harris — B. Robbins
W. Earl Smith — S. C. Snoke
H. L. Thompson — William Stafford
James Hulton, Sr. — Paul Pleet
Joseph Rambo — Walter M. Cosby
C. Herbert Harrigan

ENTERTAINMENT
Roland Pollock, *Chairman*
H. S. Bromley — Henry A. Rath
H. R. Ketterer — John T. Kommer

BUDGET COMMITTEE
William J. Wall, *Chairman*
R. A. Lukens — J. Harold Felton

* * *

Employment in English Cotton Industry

MANCHESTER, ENG.— The latest employment returns issued by the Ministry of Labour show that more workpeople were employed in the cotton industry and that the total of the wages paid was higher than a

MORE TEXTILE MILLS INCREASE PRODUCTION

The following textile mills have been added to the previously reported list of those which have announced increases in operating capacity. Further details will be found in the Mill News department:

COTTON

CORDOVA, ALA. Indian Head Mills of Alabama; operate full time with two shifts.

MONTGOMERY, ALA. Montgomery Mfg. Co.; resume operations after shut down since April.

DANIELSON, CONN. Quinebaug Co.; full time operations resumed.

NEWBURYPORT, MASS. American Cotton Fabric Corp.; 5-day week replaces 4-day schedule.

SOMERSWORTH, N. H. Great Falls Mfg. Co.; resume operations following shut down for ten weeks.

CAROLEEN, N. C. Henrietta Mills; Mill No. 2 starts full time operations; Mill No. 1 has been on full time for several weeks.

MORGANTON, N. C. Alpine Cotton Mills; started up on full time.

RUTHERFORDTON, N. C. Grace Cotton Mill Co., and Cleghorn Mills; running full, day and night.

STATESVILLE, N. C. All local mills except one on full time.

PROVIDENCE, R. I. No. 4, and Ann and Hope mills of Lonsdale Co. placed on full time schedules.

WOOL

HINSDALE, MASS. Hinsdale Woolen Mills, Inc.; operate carding and spinning departments three nights a week.

LAWRENCE, MASS. Pacific Mills; place entire printing plant in operation for first time in over six months.

MILLBURY, MASS. All mills in Millbury operating full time except Felters Co., 5 days.

KNIT

MINNEAPOLIS, MINN. Munsingwear Corp.; resume full time operations.

AMSTERDAM, N. Y. Fownes Bros. & Co.; operate at near capacity.

FULTONVILLE, N. Y. Mohawk Glove Corp.; running full.

SILK

PATERSON, N. J. Lexington Silk Co.; plans to engage night shift.

FREELAND, PA. Luzerne Silk Thowing Co.; adds to working force.

SHAMOKIN, PA. J. H. & C. K. Eagle, Inc.; resume full time schedules.

SUNBURY, PA. Susquehanna Silk Mills; maintain full schedules.

Condensed Textile Items—Continued

month or a year ago. It is stated that Blackburn had 80,000 out of its 90,000 looms running at the end of October, and that in Preston many mills were on full time. The totals shown in the reports received were 85,591 workpeople, an increase of 4% on the month and 6.4% on the year, and the wages paid £154,711, show an increase of 2.2% on the month and 11.1% on the year.

* * *

Program for Dixon Testimonial Dinner

An exceptionally fine program of speaking and music is being prepared for the dinner to be given at the Biltmore Hotel, Providence, next Saturday afternoon in honor of the 75th birthday of Ezra Dixon, president of the Southern New England Textile Club. George W. Gardiner will be the toastmaster and one of the principal addresses will be given by Dr. E. J. Cattell, city statistician of Philadelphia. A special program of vocal and instrumental music will also be provided. The dinner will be preceded by a reception at 1 o'clock.

* * *

Federal Crop Board Suggests Discontinuance of Early Forecasts

Discontinuance of cotton crop forecasts prior to Aug. 1 or Aug. 15 each season was suggested by W. F. Callander, chairman of the Federal Crop Board in addressing members of the New York Cotton Exchange at a meeting Nov. 25. This does not mean the elimination of early acreage or condition reports, but the discontinuance of forecasts in numbers of bales of cotton.

"The members of the Crop Reporting Board are of the opinion that it might be advisable for the department to delay issuance of quantitative forecasts until a little later in the season than at the present time," Mr. Callander said. "Things may occur to affect the crop later in the season so that any forecast made prior to Aug. 15, is likely to be radically changed, and as we have repeatedly pointed out the board itself has not attempted to forecast the effect of weather and other factors on the crop and have simply issued their forecasts based on present outlook. We would view with complacency therefore any steps taken to relieve the board of the responsibility of making a quantitative forecast prior to Aug. 1 or Aug. 15."

On the question of semi-monthly reports he said that the department feels that it is too early to pass final judgment on the real value of such reports, but that while undoubtedly the reports themselves on the day of their issuance have caused the market to fluctuate considerably, the range in cotton prices this year is considerably less than last year and the actual deviation of closing prices during the season is only slightly greater than last year.

"It is possible," he said, "that if the plan which was put into effect on Nov. 21, of closing the Exchange for 15 minutes after the issuance of the report had been in effect during the entire season that much of the complaint which has arisen concerning these reports would not have occurred. Our feeling is therefore that these reports should be given a more thorough trial under more normal conditions than existed during the past season before they are utterly condemned."

* * *

Worumbo Co. Changes

A. L. Gifford has resigned as president of the Worumbo Co., Lisbon Falls, Me., and has been appointed chairman of the board, a new office just created. Walter N. Gutmann, president of the Worumbo Mfg. Co. succeeds Mr. Gifford as president of the Worumbo Co. Mr. Gifford also resigned as selling agent for the Worumbo Mfg. Co., being succeeded by J. B. Kirkaldy, who has been associated with the company since last July. Galen M. Harris continues as treasurer of the Worumbo Co.

* * *

Leggin Cloth Contracts Awarded

Bids for supplying the Philadelphia Quartermaster Depot, 21st street and Oregon avenue, with 38,900 yards of olive drab 17½ to 18½ ounce leggin cloth, with worsted warp and woolen filling, 72 to 74 inches wide, were opened Nov. 28, at the Depot. Three concerns submitted bids on this proposal: Duntex Mfg. Co., Philadelphia, $4.30 per yard; deliveries to start six weeks from date of order and to be completed in 75 days; Kent Mfg. Co., Clifton Heights, Pa., 20,000 yards at $3.49 per yard, balance $3.84, delivery 10,000 yards monthly beginning in February; Worumbo Co., New York, $3.65 a yard, deliveries to start in eight weeks and complete in 20 weeks. All prices were specified as net. Contract for this material was awarded as follows: Kent Mfg. Co., 20,000 yards at $3.49 and Worumbo Co., 18,900 yards at $3.65.

* * *

Coming So. N. E. Textile Club Meeting

The executive committee of the Southern New England Textile Club announces that the next regular meeting and dinner will be held Jan. 17 with a special movie program as the outstanding feature; for the Feb. 28 dinner a historical and technical program will be provided. The exact date of the March meeting has not been decided upon and will depend upon the date that is satisfactory to a speaker of national reputation whom the committee hopes to secure. As previously announced the December meeting has been omitted in order to allow members to attend the testimonial dinner to be given to President Ezra Dixon at the Providence-Biltmore hotel next Saturday afternoon.

TEXTILE MARKETS IN BRIEF

Cotton Markets: Generally quiet in goods market, with continued easing in gray goods prices; second hand offerings are almost entirely of small yardages. Inactive month anticipated, but healthy movement expected to start shortly after the first of the year. Quiet trading in cotton blankets for 1925 with good business reported booked at prices approximately 8-10% lower than a year ago. Raw cotton not expected to go much lower.

Wool Markets: Wool goods for the current season are dull, but for spring and forward they are firm and fairly well sold. Stock overcoatings have been offered at cut prices by some mills, and have been generously bought by clothiers, some for immediate use and others for carrying over into next season. Formal opening of fall, 1925, may start with a few lines this month, but most favor withholding until the middle of January. Worsted yarns at higher prices cause manufacturers to wait. Wool buying is in limited volume owing to small stocks available and high prices demanded.

Knit Goods Markets: Heavy business placed on men's heavy-weight ribbed underwear made in the South; one line officially withdrawn for early deliveries and another practically so; larger Utica mills, still to be heard from officially, expected to open Dec. 15. Hosiery staples quieter with no important price changes; novelties continue to move well. More satisfaction with staple sweater business, and considerable propaganda for higher prices.

Silk Markets: Demand for finished silks becomes very active. Cutters taking large quantities of silks and anxious to place large business. Retailers buying spring merchandise. Prices on finished silks already show advances with further increases contemplated. Production being increased further. Raw silk steady after extended advance.

Phila. Wool Chairman Appointed

The Philadelphia Wool & Textile Association announces the following chairmen have been appointed to serve on the various committees for the coming year: Arbitration, William A. Longshore, I. Riefsnyder Son & Co.; House, J. Ellwood Moore, Wm. F. Allen & Co.; Membership, J. Samuel Stephenson, Stephenson & Craft.; Transportation, Alban Eavenson, Eavenson & Levering; Entertainment, Howard Riefsnyder, I. Riefsnyder Son & Co.; Legislation, Joseph Lord; Publicity, George M. Kerr, both of Chas. J. Webb & Sons Co., Inc.

* * *

Philippine Government Desires Bids for Cotton Socks

The Textile Division has received a circular proposal from the Philippine Government giving conditions under which bids may be submitted for 80,000 pairs of cotton socks. Bids will be received until 11 a. m. Jan. 2, 1925.

* * *

Higher British Cotton Index Figures

MANCHESTER, ENG.—A steady upward movement has taken place in raw cotton, yarn and cloth prices during the past month, the *Cotton Trade Review* (Manchester) index for the average on Nov. 14 being 241 compared with 235 on Oct. 17. On Nov. 16, 1923, the figure was 255 and at the end of the year 272.

The basis of the index is 100 as the price of each commodity on July 31, 1914. The largest individual advance on the month was in Egyptian yarn, which rose 12 points to 234. Egyptian cotton moved 8 points from 292 to 300. American cotton and American yarn have each gained 5 points to 208 and 251 respectively, while cloth prices are up one point at 211.

* * *

Takes Over Columbia Textile

LOWELL, MASS.—Announcement has been made that the negotiations which have been in progress between the Columbia Textile Co., and its creditors since last summer, culminated last week when final arrangements were made for turning over the business to the recently organized National Fabric & Finishing Co. The new owners plan to continue operation of the Columbia plant in Lowell on the same line of goods, specializing on "Coltex" fabrics, and will maintain the selling office at 79 Worth St., New York, as heretofore. Clough C. Overton will continue the management of the Columbia Textile Co. The business being operated by a subsidiary with the same staff as in the past. Mr. Overton will also have supervision of the firm's plant at Lowell, Mass., as in the past.

TEXTILE WORLD Cotton and Wool Index Numbers

THERE was a further substantial increase in the volume of unfilled orders for all major classes of textiles and a proportional increase in cotton, wool and silk consumption during November.

Wool, tops and yarns have continued the steady advance that must eventually carry raw material prices to the duty-paid basis of foreign wools, and with them must go prices of other important wool substitutes than cotton. A substantial advance in cloth prices for the heavyweight season is definitely forecast, but buyer resistance may delay the establishment of the full advance justified by raw material and production costs.

Although raw cotton prices remain unstabilized their fluctuations are narrowing and coincidently demand for yarns and cloths has expanded and prices of the latter are slowly moving toward a basis of moderate profit for producers. Unfilled orders for carded yarns and many lines of cloths are now so large as to render their prices independent of minor declines in cotton and the whole market is moving toward this basis. With production confined to an order basis the whole market should work into a strong position early next year. With cotton averaging 22 to 23c a marked advance from present yarn and cloth values is forecast.

COTTON INDEX NUMBERS

Date 1914	Cotton	Yarns	Gray Goods	Colored Goods	Aver. for Cloths	Group Average
July 31	100	100	100	100	100	100
1919						
January	235	278	280	295	288	279
April	228	221	228	238	233	226
July	283	321	372	292	330	321
October	278	324	387	320	351	337
November	314	379	410	320	362	358
1920						
January	314	448	464	411	435	427
April	339	531	498	416	455	460
July	327	425	405	423	414	407
October	190	229	248	362	308	282
November	160	175	200	258	231	213
1921						
January	131	142	176	203	190	175
April	97.5	116	138	182	161	147
July	97.5	112	133	176	155	141
October	160	179	198	208	203	193
November	145	164	187	208	198	186
1922						
January	146	168	174	206	191	182
April	144	156	168	209	189	178
July	178	182	190	200	195	189
October	177	192	206	201	203	197
November	203	214	219	203	210	207
1923						
January	225	225	220	230	225	225
April	231	239	224	242	233	234
July	217	197	190	236	212	211
October	237	222	212	225	219	219
November	269	237	224	232	228	232
1924						
January	278	241	228	243	236	239
February	256	220	208	207	208	212
March	227	206	195	201	198	203
April	220	211	192	194	193	198
May	249	207	190	193	192	197
June	240	199	193	192	193	195
July	270	198	186	191	189	196
Aug.	234	202	198	193	196	198
Sept.	197	191	188	190	189	190
Oct.	195	196	187	189	188	190
November	193	199	192	175	184	187

NOVEMBER INDEX NUMBERS

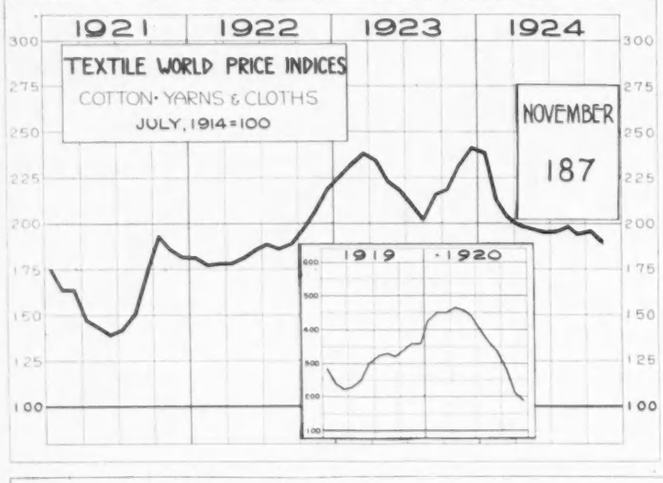
THE advance in wool, tops and yarns was more radical during November than for any month since the upward movement started in August, but wool cloths remain where they were in October and are unlikely to resume their advance until new heavyweight prices are named. Based upon closing prices for November the wool index was 55 points above the July index, tops 51 points, yarns 25 points and cloths only 7 points above July.

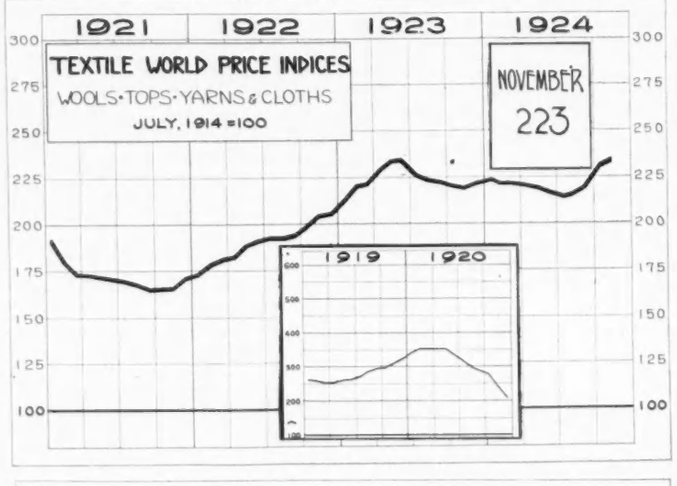
At the end of November the cotton yarn and gray goods indices had reached a basis more nearly proportional to the raw cotton index than at any time since the latter part of 1922, but colored goods had dropped far below such a parity. These indices are as follows: Cotton, 193; yarns, 201; gray goods, 194; colored goods, 173; group average, 187.

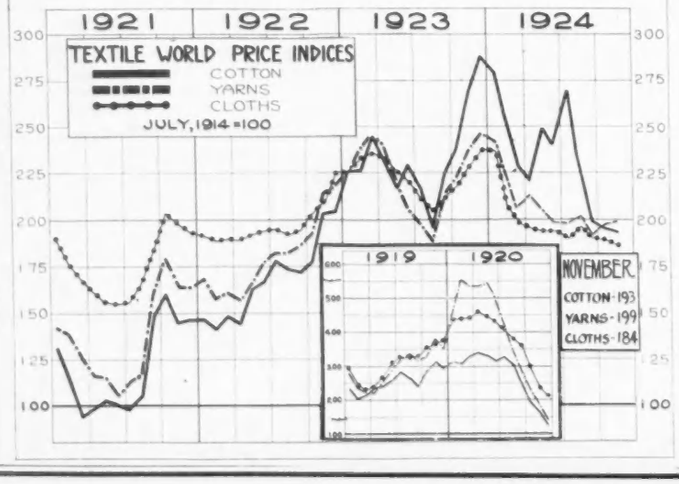
Inquiries regarding interpretation and use of the index numbers may be addressed to TEXTILE WORLD, Statistical Dept., 111 Summer St., Boston, Mass.

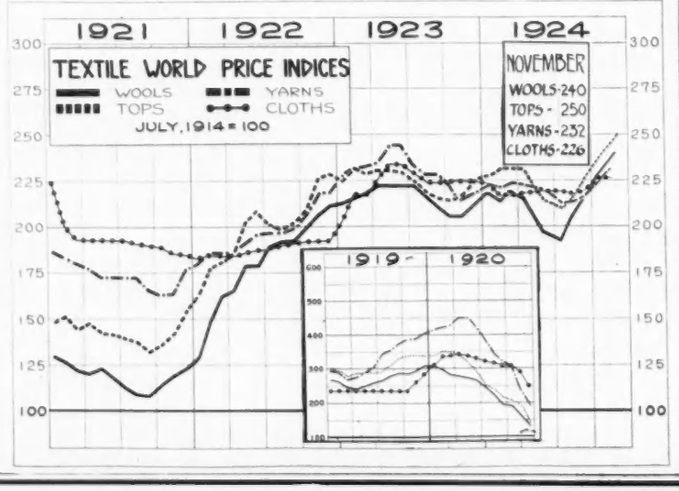
WOOL INDEX NUMBERS

Date 1914	Wool	Tops	Yarns	Cloth	Group Av'ge
July 31	100	100	100	100	100
1919					
January	272	296	290	237	273
April	242	282	273	237	253
July	269	290	238	237	272
October	286	338	384	240	294
November	296	342	384	264	307
1920					
January	304	335	412	310	336
April	276	334	448	331	352
July	241	258	384	320	315
October	189	213	302	304	276
November	158	181	238	283	242
1921					
January	129	148	186	224	193
April	120	148	177	192	173
July	112	139	172	192	170
October	114	135	162	188	165
November	119	141	163	185	165
1922					
January	128	163	179	182	173
April	165	185	185	184	182
July	189	202	196	188	193
October	199	209	208	191	199
November	206	226	218	191	205
1923					
January	212	225	227	203	213
April	222	230	234	225	228
July	222	223	233	228	227
October	205	213	222	224	220
November	205	217	215	224	219
1924					
January	217	227	221	223	223
February	217	230	222	219	222
March	220	230	224	219	222
April	216	230	223	219	221
May	206	228	222	219	219
June	195	216	219	219	216
July	191	209	212	219	213
Aug.	204	215	213	218	215
Sept.	217	226	217	221	220
Oct.	227	237	224	226	228
November	240	250	232	226	233









Worsted Wrapped Wool

British Proposal to Obviate Jute Fibres in Raw Wool

"For forty years or more wool manufacturers have incurred an infinity of trouble, damage, and expense through the packing of raw wool in jute wrappings," says the *Textile Manufacturer* of Manchester, Eng. "Jute is a friable fibre, and it is found that in the course of transit of the wool packs, short fibres are rubbed off the interior of the jute wrappers and become mixed with the wool. There is no known process of extracting these vegetable fibres from the wool, and because of their lack of affinity for the dyes used for dyeing the wool, they show up in the finished pieces as small undyed specks. The trade is thus involved in heavy additional expenses in the removal of these blemishes, at a cost recently estimated by Walter Andrews at £500,000 a year. The seriousness of the damage caused by jute fibres was clearly shown to the Dominion wool growers on their recent visit to Bradford: they were convinced that an improved wool pack was necessary.

"A suggestion emanating, it is stated, from John Emsley supplied the first clue to a satisfactory solution of the problem. His suggestion was that the pack should be of wool material, but very early a difficulty was manifest. It was thought at first that a wrapping made from a relatively dear material like wool would have to be made strong enough to withstand several journeys, so that the high first cost could be spread over several years. An awkward obstacle would be the returning of the packs for further use.

"F. A. Aykroyd then hit upon the happy idea of making a much lighter and cheaper wool wrapper that would be strong enough for one journey and cheap enough to be sold as scrap after being once used. Further, to make the canvas sufficiently strong for its purpose it is proposed to reinforce it by four metal bands around the bale, the weight of which may then be increased to 5cwt. instead of the regulation 3¾cwt.

"Mr. Aykroyd is of the opinion that when all the factors are considered, and the larger capacity, saving of freight, and the value of the used pack, are set off against its higher first cost, it will save the wool growers £100,000 to £150,000 a year in freights, while manufacturers will save £150,000 in burlers' wages."

Other sources of British news state that the proposed sacking is made of 2-11s yarn spun from 40s tops, which when garnetted is valued at 22d. per pound. The new bale requires 2½ yards of 36-inch material and 2¼ yards of 60-inch material. Rag merchants ask that users refrain from using tar or oils in marking bales because of the damage for reworking purposes. It is also said that the wool presses now used in Australia can be adapted for use in compressing the new bale.

A TEXTILE CROSS WORD PUZZLE

By *Jack Card*

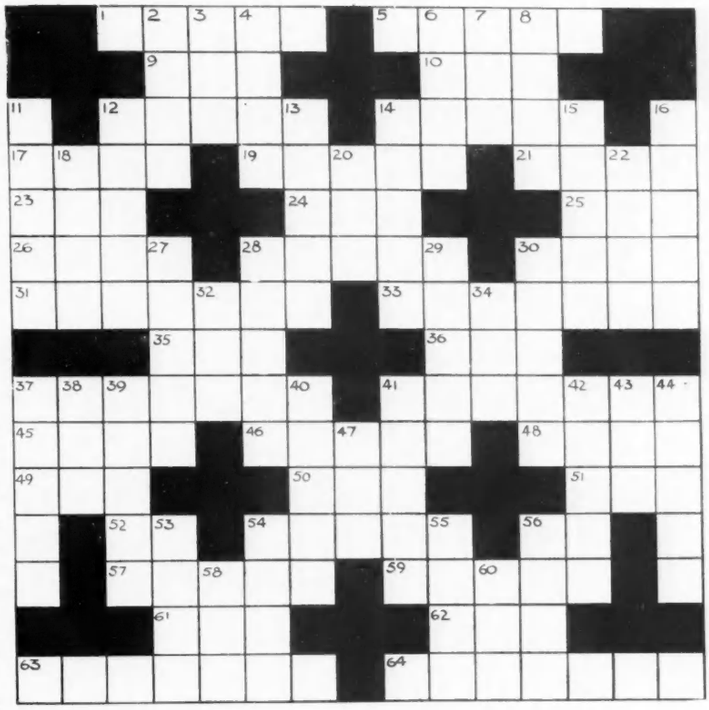
HERE it is! Not to be outdone by the *New York American*, the *New Republic* and other high-brow publications, we have dispensed with sleep for a fortnight, precipitated several family rows, and approached the borders of insanity.

Incidentally, we wish to add a new rule to the creed of the Puzzle Makers Association: *A textile puzzle must be composed of at least 90 per cent textile terms.* We've kept well within that rule; count 'em up and see.

But we've violated plenty of other rules. We have even mis-spelled two words; we admit one of these in the definition but the other is incognito just to make life more difficult.

This will probably be our first and last attempt; at least we (and family) hope so. If you think it's easy to build one, within the limitations of a textile vocabulary, try it yourself. *We are willing to pay* $10.00, *American money, for any textile cross word puzzle accepted for publication.*

Now go on with the story. (Solution will be published next week.)



Horizontal

1. A lustrous silk fabric with overshot warp.
5. A warp pile fabric.
9. Section of drying machine.
10. To steam a fabric, thus developing the shade.
12. Sections of a chain drive.
14. Makes yarn.
17. The section of his anatomy a foreman should use around the mill.
19. Transactions which delight the heart of any mill executive.
21. Location of a mill.
23. Not in. (Applies to most mill men during golfing season.)
24. A long vegetable fibre, often confused incorrectly with ramie. (We dropped the "h" as they do in England, don't y' know.)
25. Rested. (A favorite occupation in textile mills.)
26. Applications.
28. Rolls on which warps are wound.
30. A kind of wool.
31. Our industry.
33. Machine which winds yarn on spools.
35. American Cotton Association. (Abbr.)
36. Be sick. (As many textile men were in 1920.)
37. Manufactured cloths.
41. Disburdens. (You've seen it done on any siding platform.)
45. Female sheep.
46. Vessels in which cotton goods are boiled out.
48. Long vegetable fibre (spelled correctly this time.)
49. A measurement for linen yarn.
50. A solution used in the kier.
51. Electromotive force. (Abbr.)
52. Initials of The World's Textile Authority.
54. A dagger. (This is a hard one. Not textile, either. Consult Webster.)
56. First syllable uttered by any overseer's infant (and possibly by other babies.)
57. Used in scouring. (Pl.)
59. Cut with a tooth-edged instrument. (Look around your box factory.)
61. A flax substitute for wool. (This is a mean one.)
62. Narrow fabric.
63. Channels through which goods may be disposed of.
64. Fabrics made from an important vegetable fibre.

Vertical

2. A type of chemical used in souring cotton goods during the bleach.
3. A shade.
4. Materials used for stamping lot numbers on goods.
6. Layers of carded or combed fibres, wound on a roller, ready to be spun.
7. Hawaiian fibrous grass used for cords.
8. Japanese coin, equivalent to half a cent, used in silk trade. (Pl.)
11. To talk loudly—as is necessary in a beetling room.
12. Uncoagulated milk of rubber plant, used in cord tire manufacture.
13. Coarse East Indian cotton cloth with colored heading.
14. Lines formed by the sewing together of two pieces of cloth.
15. Fibre grown in Central America, used extensively for cordage.
16. Measure of length, used on Continent (equals 39.37 in.)
18. Suffix added to "charm" to form name of a fabric.
20. Measure for wet spun linen yarn. (This is a repeater.)
22. Narrow cotton or linen fabric used for binding.
27. What any employe sees after a good fight.
28. A color.
29. Stretches across.
30. Pigment.
32. Here. (Fr.)
34. Material used in textile mill for lubrication.
37. Compact cloths made of wool or hair, not woven.
38. To inspire fear (as many a mill president does to his employes.)
39. To strike repeatedly (as is done in certain opening processes in a cotton mill.)
40. Lustrous fabrics.
41. Organic compound formerly used in indigo dyeing. (Pl.)
42. In advance. (Some manufacturers are, you know.)
43. Political faith of our southern manufacturers. (Abbr.)
44. Repositories for mill funds (when there are any.)
47. An organ which is useful around the mill.
53. An animal fibre.
54. Term used to denote immediate delivery.
55. National Association of Woolen Overseers. (Abbr.) (We've left out part of the title but you don't mind, do you?)
56. Obligation. (Occasionally found in the textile industry.)
58. An implement. (No, this isn't textile.)
60. Condition in which goods come from the water mangle.

Silk Association to Investigate Cost Accounting

A meeting of those who have expressed special interest in uniform cost accounting in the silk industry was held at the Advertising Club, New York, on Nov. 28.

T. W. Howard of the Chamber of Commerce of the United States, the speaker of the afternoon, was introduced by the chairman, Geo. A. Post of Post & Sheldon Corp., vice-president of the Silk Association of America. He spoke of the value, legality, and ways of developing uniform cost accounting, and drew the attention of the silk manufacturers present to the various industries which are progressing in the development and application of cost accounting methods.

Following the address an open forum was held. Jno. D. Dunlop of Jno. Dunlop Sons, Inc., Harry S. Park of the Read & Lovatt Mfg. Co., Herbert R. Sands of the Corticelli Silk Co., and Oscar E. Stevens of the Phoenix Silk Mfg. Co., Inc., were among those who participated in the discussion.

Mr. Dunlop moved that it be the sense of the meeting that it will be desirable for the silk industry to continue the work in uniform cost accounting. The motion was passed and was followed by a recommendation that the Silk Association form a general committee on uniform cost accounting and provide for subcommittees to further the interest of the various divisions in this direction.

THE PERSONAL PAGE

Charles B. Barnes, of Boston, has been elected president of the Bates Mfg. Co., Lewiston, Me., to succeed the late Robert J. Edwards. Mr. Barnes is also president of the Continental Mills, Lewiston.

Benjamin Elsas, formerly vice president of the Fulton Bag & Cotton Mills, Atlanta, Ga., is now president, having succeeded the late Oscar Elsas.

John E. Edgerton, president of the Lebanon (Tenn.) Woolen Mills, who is also president of the National Association of Manufacturers' and the Tennessee Manufacturers' Association, addressed the Berkshire County (Mass.) Employers' Association at a dinner held at the Park Club, Pittsfield, Mass., on Nov. 25.

T. M. Norris, president and treasurer of the Norris Cotton Mills Co., Cateechee, S. C., has been chosen president of the Greenville Chamber of Commerce for the year beginning Dec. 1.

Joseph Lord, Chas. J. Webb & Sons Co., Inc., Philadelphia took an active part in the Welfare Federation drive for funds to be distributed during the coming year for charitable purposes. He was instrumental in making the good record reached by his team.

E. Allen Thompson has severed his connections with the Campe Corp. to become a partner in the firm of R. P. McLoughlin & Co., representing mills of the McLoughlin Textile Corp., Utica, N. Y., and associated companies. Mr. Thompson will make his headquarters in Chicago.

Herman Coulter, who has been assistant treasurer of the Goodyear Cotton Mills, Inc., Goodyear, Conn. is to be transferred to a similar position at the Goodyear plant in New Bedford, Mass., recently acquired from the American Cotton Fabric Corp. It is rumored that the position of treasurer will in all probability be given to P. H. Hart, who will maintain headquarters in Akron, Ohio. L. S. Hall, superintendent of the Goodyear Textile Mills, Los Angeles, Cal., is spoken of as being the new manufacturing head of the New Bedford plant.

Senator-elect John E. Thayer, Jr., a director of the Hamilton Woolen Co., Southbridge, Mass., left on Dec. 2 for a 10 days' trip to Cuba.

W. Parker Straw, agent of the Amoskeag Mfg. Co., Manchester, N. H., is making a satisfactory recovery from a minor operation.

Calvin E. Sweet has been appointed general manager of B. B. & R. Knight, Inc., with main office in Providence, R. I., succeeding F. L. Branson who resigned recently to become president of the Graniteville (S. C.) Mfg. Co. Mr. Sweet has been assistant general manager for the company for several years.

J. R. Moore has succeeded N. B. McCanless as manager of the Halifax Cotton Mills, Inc., Mt. Pleasant, N. C.

E. B. Filsinger, export manager of Lawrence & Co., was the principal speaker at the monthly meeting, Monday evening of last week in Lawrence, Mass., of the overseers of the Pacific Mills. Based upon his observations during a recent tour of Germany, France and England he predicted increased activity in South American, European and Russian textile markets and an expanding export demand for domestic textiles.

Spaulding Bartlett, who has been agent for the Webster (Mass.) Mills of the American Woolen Co., since it took over the South Webster plant of S. Slater & Sons, Inc., last year, has resigned on account of ill health and is to be succeeded by William Deacon, Jr., superintendent of the Eastern Division of the American Woolen Co., who makes his headquarters at Shawsheen Village, Mass. Mr. Bartlett, who is one of the best known textile men in New England, began his career in the industry in 1891 as a card boy in the Slater Mills, of which his father, Amos Bartlett, was manager. He advanced to the treasurership of the corporation, which position he held from 1913 to 1923, as well as agent. Mr. Bartlett is first vice-president of the Manufacturers' Textile Association. He plans to spend some time recovering his health on his farm in Webster before he again actively engages in business.

Robert Russell, general superintendent at the Acushnet Mill Corp., New Bedford, Mass., has tendered his resignation to become general superintendent at the Dartmouth Mfg. Co., also of New Bedford. Mr. Russell will be succeeded by Wright Bolton, who was superintendent at the Acushnet-Hathaway mills until he suffered a breakdown in health three years ago.

A. L. Mabbett, for the past ten years superintendent of the Newport (Me.) Mill of the American Woolen Co., has been promoted to the position of agent, succeeding the late Charles E. Jones.

R. W. Harris has succeeded G. T. Roth as superintendent of the Chatham Mfg. Co., Winston-Salem, N. C.

G. Chapman, superintendent of the Woodstock Cotton Mills, Anniston, Ala has resigned.

Lawrence R. Brumby, assistant superintendent of the Porterdale Mills of the Bibb Mfg. Co., Porterdale, Ga., has been promoted to the superintendency of these mills. Mr. Brumby succeeds L. N. Woodruff, who has gone to Columbus, Ga., to become superintendent of the Bibb mills at that place.

S. F. Fowler is now superintendent of the Ashville (N. C.) Knitting Mills, Inc.

J. F. Jones has resigned as superintendent of the United Mills Co., Mortimer, N. C.

S. R. Power is now superintendent of the Broad River Mills, Blacksburg, S. C.

E. H. Steere has succeeded J. M. Sams as superintendent of the Asheboro (N. C.) Hosiery Mills.

W. D. Carlton has become superintendent of the plant of the Anniston (Ala.) Knitting Mills Co.

J. C. Crosby has succeeded A. M. Cox as superintendent of the Texas Cotton Mill Co., McKinney, Tex.

T. C. Bentley is superintendent of the plant of the Southern Weaving Co., which started operations in Greenville, S. C., a few months ago.

George Baxter has been appointed superintendent of the Bound Brook (N. J.) Woolen Co. succeeding Louis Bondy. Mr. Baxter was assistant superintendent at this mill.

O. F. Benton has succeeded R. D. Jones as superintendent of the Cowikee Mills, Union Springs, Ala.

Walter Graenz has taken the position as superintendent for the Rivoli Silk Hosiery Co., New York, N. Y. Mr. Graenz comes from Philadelphia, Pa.

Frederick Tapley, formerly connected with the Osgood Mills of the M. T. Stevens & Sons Co., North Andover, Mass., has succeeded S. A. Stubbs as superintendent of the Marland Mills of the company, in Andover.

G. Chapman, superintendent of the Woodstock Cotton Mills, Anniston, Ala., has resigned.

G. L. Meacham, for some months with the Eastern Mfg. Co., Selma, N. C., has returned to his former position of superintendent with the Diamond Cotton Mills Co., Salisbury, N. C.

Russell F. Reelin, formerly assistant superintendent and designer for the Amoskeag Mfg. Co., Manchester, N. H. is now connected, in an executive capacity, with Compania Harder, Ltda., which has just started operation of a new knitting mill in Buenos Aires, Argentina.

Russell B. Newton has been promoted to the position of assistant superintendent of the plant of the Bibb Mfg. Co., Columbus, Ga. Mr. Newton graduated from the Georgia School of Technology in 1920.

Chester A. Page has taken the position as assistant superintendent and designer for the Moniteau Woolen Mills, California, Mo. Mr. Page comes from Columbiaville, Mich.

John J. Barnes, assistant superintendent for the Acushnet Mill Corp., New Bedford, Mass., has resigned to accept a similar position with the Dartmouth Mfg. Co. of the same city.

L. R. Brumby, assistant superintendent of the Porterdale (Ga.) Mills, has been promoted to superintendent.

Ernest C. Cotton, for 12 years paymaster at the Linwood Mill of Whitin Bros. Inc., Whitinsville, Mass., has resigned and has been succeeded by William S. Gould.

William S. Gould, paymaster at the Saunders Cotton Mills, Saundersville, Mass., has been transferred to the Linwood Mill of Whitin Bros., Inc., Whitinsville, Mass., in the same capacity. Both mills are owned by the same interests.

S. A. Stubbs has accepted the position as overseer of dyeing for the Houlton (Maine) Woolen Mills. Mr. Stubbs was formerly employed at the Marland Mills, Andover, Mass

Thomas W. Lawton has accepted the position as overseer of carding for the Conestogo Mills, of the John Farnum Co., Lancaster, Pa. Mr. Lawton comes from Pawtucket, R. I.

Thomas Francis Mullen, an overseer for the Fabyan Woolen Co., Medway, Mass., and Miss Margaret Helen Nash, Milford, Mass., were married in St. Mary's Church, Milford, on Nov. 24.

R. M. Perkins has taken the position as overseer of spinning and spooling for the Smith Mills, Milford, Mass.

Vincent Degnan, overseer of finishing for the Bellingham Woolen Co., North Bellingham, Mass., has resigned his position with that company.

D. W. Knight, overseer of spinning in the Rocky Mount (N. C.) Mills, has been promoted to the position of superintendent.

Leo E. Vanasse has resigned his position as night overseer of finishing for the Merrimack Woolen Corp., Lowell, Mass., to become overseer of finishing for the Security Mills, Inc., Newton, Mass.

George Goodridge has taken the position as overseer of carding for the E. E. Hilliard Co., Buckland, Conn. Mr. Goodridge comes from Moosup, Conn.

George Washburn, overseer of dyeing for the Wales (Mass.) Woolen Mills, Inc., has resigned his position with that company.

James B. Knight, formerly overseer of spinning for the Lane Cotton Mills Co., New Orleans, La., is now night overseer of spinning in the Exposition Cotton Mills, Atlanta, Ga.

Floyd Stewart has taken a position as overseer of spinning with the Cedartown (Ga.) Cotton & Export Co.

Arthur Little has taken the position as overseer of dyeing for the Jefferson Woolen Mills, Knoxville, Tenn. Mr. Little comes from Rossmore, Ont., Canada.

Merriam Connelly has taken the position as overseer of carding for the Adams (Mass.) Woolen Co. Mr. Connelly was formerly employed for the McCurn Yarn Co., Worcester, Mass.

Fred L. Mason, overseer of spinning in the Aragon (Ga.) Mills, has resigned.

W. E. McKinney, formerly overseer of spinning in the Fulton Bag & Cotton Mills, Atlanta, Ga., has taken a position in the Banning (Ga.) Cotton Mills.

George H. Tabor has taken the position as overseer of finishing for the Houlton (Maine) Woolen Mills. Mr. Tabor comes from Burlington, Vt.

POWER AND ENGINEERING SECTION

Standardization of Textile Mill Lubrication

Importance of Specifications in the Selection of Suitable Lubricants—Certain Properties Necessary for Consideration, Such as the Viscosity or Relative Fluidity, the Baume Gravity, the Flash Point, the Fire Point, the Pour Test, and the Nature and Extent of Fixed Oil Compounds Contained

By *Allen F. Brewer*

Many mills which are now satisfied with their methods of treating lubrication problems would realize an increase in economy of production if they should make certain changes in the type of lubricants they use or in their methods of lubrication. Unnecessary friction not only causes unnecessary loss of power but also needlessly increases the rate of machinery depreciation. Herewith, TEXTILE WORLD is publishing the first of a series of articles dealing with lubrication as related to textile mills. It is hoped that this series will help to impress more fully the importance of studying certain phases of this important subject. In this first article, the matter of specifications is discussed. Other matters to be taken up in future issues will include care and storage of lubricants, reclamation and purification, lubricating equipment, and the lubrication of various types of machinery in cotton, woolen, worsted, knitting, silk and finishing plants.

THE development of the quality of lubricants required in the modern textile mill is one of the basic fundamentals of efficient plant operation. In fact, the attainment of maximum production is directly dependent upon machine lubrication, for it is this latter which insures continued economical operation. Without the most careful selection of lubricating oils and greases, and attention to their handling, storage and purification, no plant can expect to operate at maximum efficiency, or meet the demands of production. To sum up, every endeavor must be made, through the medium of scientific lubrication, to render the unit cost of production as low as possible.

The most logical starting point in any discussion of the science of lubrication involves the characteristics or properties of the lubricants customarily used. In the trade, these are usually regarded as specifications, as there are certain recognized limitations applied to each within which it is possible to refine or compound the lubricants accordingly. For example, the standards of viscosity by the Saybolt Universal viscosimeter in certain cases differ by increments of one hundred seconds at 100 deg. F. for the more fluid products generally used on textile machinery. In order to conform with trade practices, these several properties will be referred to as specifications wherever it is necessary to speak of them later on. As a rule, the textile industry will be interested in:

(a) The viscosity or relative fluidity.
(b) The Baume gravity.
(c) The flash point.
(d) The fire point.
(e) The pour test.
(f) The nature and extent of fixed oil compounds employed.

Specifications for Greases

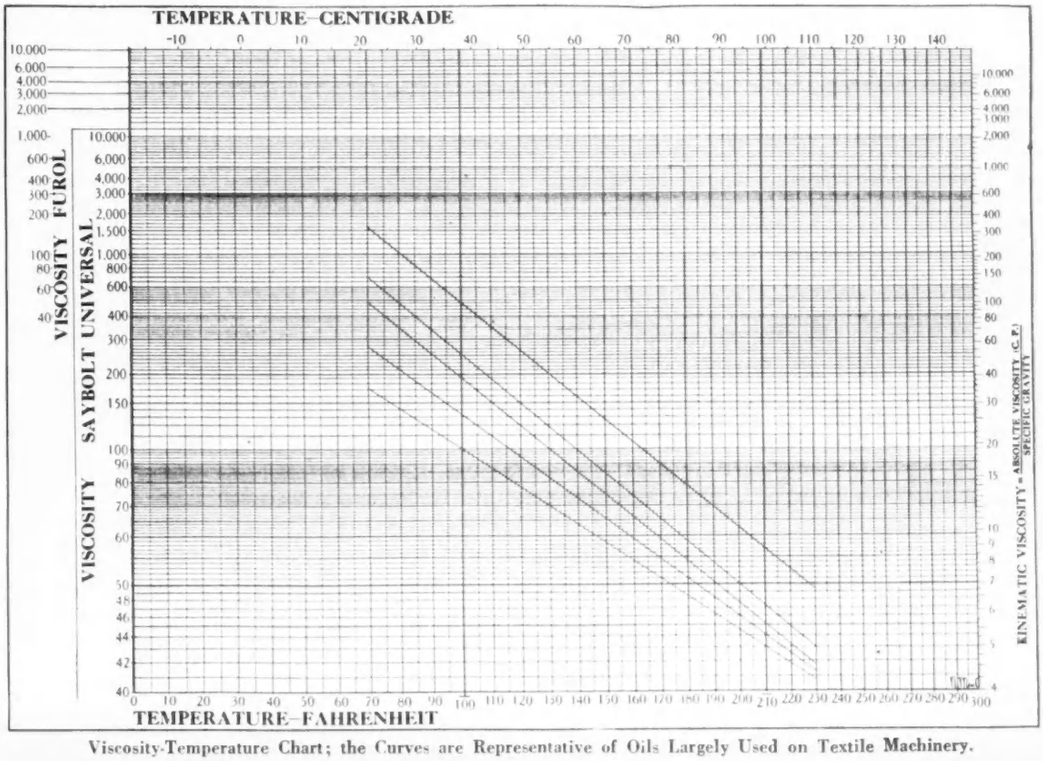
All the above pertain to what are known as fluid oils, that is, the usual grades of engine oils, steam cylinder lubricants, and textile or loom oils. Greases, however, are also quite extensively used, and therefore their specifications are likewise of interest. In general, a grease is specified or denoted according to its hardness, and this latter is, to a certain extent, a measure of its mineral oil content. In other words, a semi-solid lubricant, which is relatively fluid, such as would be used for top roll or comb box purposes, would contain but a small percentage of soap, whereas a grease applicable to calender rolls or the mandrel bearings of a printing machine would have to be a comparatively hard product, compounded with considerable soap and a mineral oil of high flash and fire points.

To further a clearer understanding of the part the above specifications may play in the selection of suitable lubricants for textile machinery, a brief explanation of each is considered advisable.

Where a fluid lubricant is under consideration, the viscosity or relative fluidity is usually the outstanding characteristic. To many, however, this is a vague expression which seems to imply fluidity, but in a manner understandable to the oil man alone. For example, the statement that a textile oil has a viscosity of from 70 to 100 seconds Saybolt at 100 deg. F., while a steam cylinder oil has a viscosity of 150 seconds at 210 deg. F. is certainly meaningless to one not conversant with these terms.

Testing Viscosity

Essentially, viscosity is a direct measure of the internal or fluid friction of an oil, indicating in fact its resistance to flow. It is generally determined by observation of the length of time a certain amount of oil will take to flow through an orifice of standard size. This latter, however, must be standardized against water, as is the case with the Saybolt and Engler viscosimeters; or against some other uniform liquid, such as rapeseed oil, as is the case with the Redwood instrument. Viscosity, as measured by the Saybolt Universal viscosimeter is taken as the time required for sixty cubic centimeters of liquid to flow through at some standard temperature. For engine and machine oils, this temperature is generally 100 deg. F. For steam cylinder lubricants and gear compounds, however, 210



Viscosity-Temperature Chart; the Curves are Representative of Oils Largely Used on Textile Machinery.

deg. F. is the usual temperature, due to the fact that such products would be so heavy or viscous at 100 deg. F. as to render their viscosity measurement uncertain.

The Saybolt instrument is most generally used in the testing of textile oils to-day. It is so standardized that 60 cubic centimeters of pure water at 60 deg. F. will flow out in 30 seconds. Thus, the viscosity of water at 60 deg. F. is 30 seconds. Accordingly, where we state that the viscosity of a machine oil is 300 seconds Saybolt at 100 deg. F., we mean that 300 seconds will be required for 60 cubic centimeters of the oil to flow through the viscosimeter at 100 deg. F.

In the accompanying viscosity-temperature chart, which is copyrighted by the Texas Company, the several curves are representative of oils customarily used on textile machinery. If the viscosity of any other oil at two distinct temperatures is known, it is readily possible to plot its curve on the same chart and thereby determine whether the oil would have suitable body at whatever operating temperature it is likely to be used.

Effect of Temperature

It must be borne in mind, however, that the viscosity of an oil varies inversely with the temperature. In other words, the higher the temperature the lower will be the viscosity. It is, therefore, important to note the operating temperature to which an oil will be subjected when making its selection. Very often, higher temperatures will render it necessary to select an oil of correspondingly higher viscosity (at the standard temperature of 100 deg. F.). In fact, use of the theoretically correct viscosity oil under abnormal operating temperatures might often lead to a direct waste of oil and the possibility of an insufficient lubricating film being maintained. Problems involving unusual operating temperatures are always most safely solved if an experienced lubrication specialist is consulted. In such cases price considerations should not be allowed to influence the ultimate choice of the lubricant. It often might result in a case of "penny wise and pound foolish," for oil, after all, is one of the cheapest items involved in general plant operation.

In the selection of textile lubricants, a knowledge of the Baume gravity will often be of advantage in that it is frequently an indication of the nature and base of the crude from which the oil has been refined. In other words, lubricants from paraffine base petroleums will usually be of higher Baume gravity than those from asphaltic or napthenic base crudes.

The Baume Gravity Scale

The Baume gravity is an arbitrary scale with a definite relation to specific gravity. On the Baume scale, the gravity of water is taken at 10 deg. In commercial practice, Baume gravity is the scale most commonly used in the specifying of petroleum products. To a certain extent, it is an indication of the relative weight of an oil. As well, it is a general guide as to the fluidity or viscosity at the temperature of observation; that is, the lower the Baume gravity or the higher the specific gravity, the more viscous will be the oil. In the opinion of authorities, the gravity of an oil has practically no bearing upon its lubricating qualities, except that it serves as a guide when oils of a particular base are desired. An example of this is where low pour test oils are required. Usually, asphaltic base lubricants will show the lower pour test due to the absence of congealable wax components. Now it is easier to measure the gravity than the pour test. Therefore, if an oil capable of flowing in a relatively cold climate is desired, of the two comparatively satisfactory lubricants that with the lower Baume gravity would probably give best results.

Baume gravity is also indicative of the flash and fire points of an oil. That is, the paraffine base oils will all have correspondingly higher tests of this nature than asphaltic base lubricants of like viscosities. So, if a textile mill were to involve high temperature conditions of any nature, where doubt ensued as to the ability of the oil to withstand abnormal vaporization, etc., choice of the higher gravity product would be a safe precaution.

It can be readily seen, therefore, that certain of the physical characteristics possessed by all fluid lubricating oils can be studied with relation to each other, oftentimes to good advantage. On the other hand, operating conditions must always be taken into consideration; for general specifications otherwise may oftentimes fall far short of indicating the suitability of a particular oil.

The Flash Point

Mention has been made above in regard to the flash point. Normally, this characteristic is of concern to the textile industry only in event of higher operating temperatures existing. For example, calender roll bearings in close contact with steam might involve such a condition. The mandrel bearing of a printing machine would be another illustration. Therefore, a knowledge of the flash point and its bearing on the source of the lubricant will be of interest.

Essentially, the flash point of an oil is that temperature at which it will give off an appreciable amount of vapor when it is slowly heated. This vapor subsequently forms an inflammable mixture with air which will flash momentarily upon the application of a flame. In certain improperly refined oils, a relatively low flash point will indicate an excess of volatile constituents or "lighter ends." With carefully refined products, however, lower flash points will indicate the source as asphaltic base crudes, inasmuch as with paraffine base lubricants in general, this test is considerably higher. It must not be forgotten on the other hand, that this only holds true where the viscosities of the lubricants under comparison are approximately the same. For example, the flash point of a paraffine base spindle oil would be about the same as that of a heavy asphalt base automobile engine oil. Therefore, in comparing flash points both the viscosity and Baume gravity should be kept in mind, otherwise serious error in selection might be made.

The Fire Point

To the textile operator, the fire point of a lubricating oil will be of concern only so far as fire hazard is involved. Naturally, an oil of such a base or so refined as to have a relatively low flash point might prove

Power Data Sheets

By F. S. Root

1 — POWER REQUIRED TO OPERATE BRAIDING MACHINES.

TEST "A"

MOTOR. 25 H.P. 900 R.P.M. 550 volts, 60 cycles, 3 phase.
DRIVE. Motor belted directly to shaft driving 23 tables of Braiders.
LOAD. 18,261 Carriers. Speed of hand cranks = 180 to 200 R.P.M.

TEST DATA.	HORSE POWER GROSS	HORSE POWER NET
Motor, Belt, Shaft, and all tables on loose pulleys	11.2	—
5 Tables (3006 Carriers) added	16.5	5.3
5 more tables (3196 Car.) added	22.4	5.9
4 more tables (2419 Car.) added	25.2	2.8
5 more tables (3213 Car.) added	29.5	4.3
5 more tables (3171 Car.) added	33.6	4.1
5 more tables (3196 Car.) added	36.2	4.2

SUMMARY.

Total input to motor with all load on	36.2 HP
Motor and Shafting Load	11.2
Net H.P. required to operate 18,261 Carriers	25.0
Carriers per Gross H.P.	504
Carriers per Net H.P.	730
Gross H.P. per table	1¼
Gross H.P. per Carrier	.0020
Net H.P. per Carrier	.0014

PRODUCT. Shoe + Corset Laces.

2 — POWER REQUIRED TO OPERATE BRAIDING MACHINERY.

TEST "B"

MOTOR. 20 H.P. 1800 R.P.M. 220 volts, 60 cycles, 3 phase.
DRIVE. Motor belted directly to overhead shaft, driving 7 tables of Braiders.
LOAD. 36 Braiding Machines, of 21 carriers each = 5292 Carriers.
Speed of hand cranks, 200 R.P.M.
Speed of table shafts = 140 R.P.M.
PRODUCT. White cotton tape, 3/16" wide, made of 21 Strands of #22 yarn.

TEST DATA

Motor, main shaft, 4 table shafts, all machines on loose pulleys	7.0 HP.
All Braiders at work	19.6 HP.
2 Tables & Shafts stopped	15.8 HP.
Net H.P. required for 1 table	1.9 HP.

SUMMARY

Carriers per Gross H.P.	270
Carriers per Net H.P.	420
Gross H.P. per Carrier	.0037
Net H.P. per Carrier	.0024

3 — POWER REQUIRED TO OPERATE BRAIDING MACHINERY.

TEST "C"

MOTOR. 5 H.P. 1200 R.P.M. 220 volts, 60 cycles, 3 phase.
DRIVE. Motor belted to shaft driving 22 Braiding machines of 49 Carriers each, and 26 machines of 55 Carriers each. (2278 Carriers in all.)

TEST DATA.

Motor and all shafting	2.52 H.P.
All machines at work	4.80 H.P.
Net Power for 2278 Carriers	2.28 H.P.

SUMMARY

Carriers per Gross H.P.	474
Carriers per Net H.P.	1000
Gross H.P. per Carrier	.0021
Net H.P. per Carrier	.0010

TEST "D"

MOTOR. 15 H.P. 1200 R.P.M. 550 volts, 60 cycles, 3 phase.
DRIVE. Motor belted to line shaft, driving Braiders by quarter-turn belts.
LOAD. 14 Tables carrying 416 Machines of 24 Carriers each = 9984 C.

TEST DATA

Motor, shafting, and all machines at work	19.1 HP.

1 — POWER REQUIRED TO OPERATE COTTON SLASHERS

TEST "A"

MOTOR. 40 H.P. 1200 R.P.M., 220 VOLTS, 3 PHASE, 60 CYCLES.
LOAD. 5 Slashers, 1 Single Fan, 1-48" Double Fan.

TEST DATA

LOAD	H.P. INPUT.
Motor, Shafting, 5 Slashers, 1 Single Fan, 1 Double 48" Fan	36.0
Single Fan stopped	31.0
Double Fan stopped	20.9
Motor & Shafting	5.9

NET H.P. REQUIRED

Single Fan	5.0
48" Double Fan	10.1
Group of 5 Slashers	15.0
Average per Slasher	3.0

Variation in H.P. required, as affected by time of cut.

SLASHER WITH 2872 ENDS

Cut in 84 Seconds	3.93 H.P.
" " 64 "	4.57 "
" " 52 "	6.52 "

The above data sheets are the second installment of a series which TEXTILE WORLD is publishing in Power and Engineering issues. The first group of these sheets appeared in the issue of Oct. 4, 1924, and considered the power required to operate pickers, cards and combers. This group considers braiding machines and slashers. Future installments will have reference to other types of machinery. It is believed that many readers will find it of advantage to cut out these data sheets and keep them for reference. They should be of value to mill engineers, superintendents, overseers, electricians, millwrights, central station men, and equipment salesmen. The information contained is of a nature not commonly available and is the result of actual tests.

dangerous and objectionable under high temperature conditions, especially where the machinery might be so constructed that a fire would singe or burn the goods under treatment. The finishing room would be an example of this, especially where gas heaters might be used. Here heavier, more viscous lubricants would be necessary, not only to insure against dripping or spraying onto the goods, but incidentally because their flash and fire points would normally be higher.

Essentially, the fire point is arrived at by increasing the temperature of the oil gradually above the flash point until sufficient vapors will be given off to ignite and burn steadily when a flame is applied. The temperature at which this will occur is called the fire point of the oil in question.

The Pour Test

In contrast to the flash and fire points, the pour test of a lubricating oil involves the behavior of the latter under low temperature conditions. The pour test as understood in the oil industry is the lowest temperature at which an oil will flow or pour. It will normally be relatively lower in asphaltic base oils than in paraffine base oils of the same viscosity, due to the presence of a certain amount of wax in the latter which would aid the congealment of the oil at lower temperatures.

The pour test is of value in developing suitable textile machinery lubricants to the extent that it not only is indicative of the base or crude which has been used, but also of the fluidity of the products when they are to be handled under low temperatures. In very cold climates, where the plant, for example, is not well heated, the pour test may develop into a very important characteristic, and it should by all means be determined by the purchaser before contracting for his oils. For example, line shaft bearing hangers, electric motors or other equipment which could easily be installed in out-of-the-way localities might involve serious lubricating difficulties if a high pour test paraffine base machine oil were used for their lubrication.

Frequently, the pour test of certain oils of this nature will run appreciably above 30 deg. F. It is, furthermore, no exaggeration to state that in many plants during the winter this may be an average operating temperature. To insure against such a possibility, the evident precaution would be to select low pour test asphaltic base oils; in other words, oils which would not begin to congeal until cooled to the neighborhood of zero F.

Fixed Oil Compounds

Organic oils of animal or vegetable origin are known either as fixed or fatty oils, or volatile oils. Oils of this nature are not subject to distillation. Furthermore, they differ from mineral oils in that they contain oxygen in addition to hydrogen and carbon. The chief value of such oils to the textile industry, however, is their ability to form emulsions with water. Emulsification is often a necessary characteristic in products, such as spindle and loom oils or semi-solid greases, due to the frequent tendency of certain parts of the machinery to splash or drip lubricants onto the goods, and the ultimate necessity of removing such stains by scouring, etc.

Mineral oils in compound with fixed oils are more easily removed in the washing or cleaning process than would be the case with straight mineral oils, inasmuch as fixed oils lend their emulsifying or saponifying tendencies to any compound of which they form a part. Neatsfoot oil is preferred by certain authorities as the fixed oil component of such lubricants, due perhaps to its non-drying property and the fact that it does not turn rancid readily. On the other hand, lard, castor, cottonseed, and olive oils all are used for the same purpose. Essentially, the object is to create a stainless lubricant in order to reduce wastage of the goods as much as possible. The oil industry has studied this matter of compounding in extensive detail. Therefore, if the textile mill manager or engineer selects an oil of any reliable oil company which has made a study of textile stainless oil requirements, he ought not to find it necessary to worry very much regarding the actual fixed oil which is used or its percentage.

Ventilation of Dyehouses

Special Need of Ventilation in Dyehouses and Wet Finishing Rooms—How Warm Air Is Used as a Sponge to Absorb Vapors—Principles Involved in the Removal of Moisture—The Practical Application of These Principles—Simple Engineering Calculations for this Work

By *Charles L. Hubbard*

SPECIAL care is necessary in the ventilation of dyehouses for three principal reasons. First, on account of the comfort, health and resulting efficiency of the operatives; second, the prevention of damage to goods through dripping; third, preservation of the building construction. An overheated atmosphere, loaded with moisture, has a decidedly enervating effect upon those working in it and reduces their efficiency, to say nothing of its effect upon their general health, liability to colds, and absence from work. Furthermore, the fog produced by a humid atmosphere obscures the view and interferes with rapid and effective work.

Dripping of condensation from the overhead construction not only wets the clothing of the operatives but also damages the goods in process of manufacture by spotting or staining. Another objectionable effect of excessive moisture, although less noticeable, is the rapid decay of the building construction, especially of the roof and upper parts.

Ordinary Methods Insufficient

Owing to the presence of hot liquids in large quantity, dyehouses are likely to become overheated, and while the opening of doors, windows or roof ventilators may lower the temperature, the admission of cooler air results in producing a dense fog which may be as objectionable as overheating. Ordinary methods of ventilation do not apply to spaces containing a high degree of humidity, and special arrangements must be employed in order to obtain satisfactory results. Therefore, a thorough understanding of the principles involved in moisture and humidity control is necessary if one is to proceed along logical lines in planning a ventilating system of this kind.

The moisture or water vapor existing in a given space is independent of the air with which it is mixed, and would act the same in a vacuum. Temperature alone controls the vaporization and condensation. However, it is more convenient in ventilating work to consider the moisture as contained in the air itself rather than the space which it occupies, and this will be assumed in the discussion which follows.

Saturated Air

Air is saturated when it contains all the water vapor it can hold without precipitation taking place. If the amount of vapor is less than that corresponding to complete saturation, the air will tend to absorb more moisture, if water is present, until it becomes saturated. The weight of moisture which a given volume of air will hold varies with the temperature. For example, 1,000 cu. ft. of air at a temperature of 60 deg. F. will absorb and hold 0.828 pounds of moisture. If the temperature is raised to 80 deg., it will continue to absorb moisture until it contains 1.57 lbs. at the point of saturation.

The temperature of saturation for a given weight of water per cubic foot, or per 1,000 cubic feet, is called the dew-point. That is, the dew-point for a moisture content of 0.828 pounds per 1,000 cubic feet of air is 60 deg. F., and for 1.57 pounds, it is 80 deg. F. In either case, cooling the air below these temperatures will cause moisture or dew to form on the walls or other objects in the room, or the air to become "misty" with vapor.

When clouds of steam fill the dyehouse, it is because the air has become loaded with moisture from the boiling kettles until it has become saturated, and then cooled below the dew-point by the opening of windows or ventilators, thus admitting cold air, or by coming in contact with roof or wall surfaces which lower its temperature.

Absolute and Relative Humidity

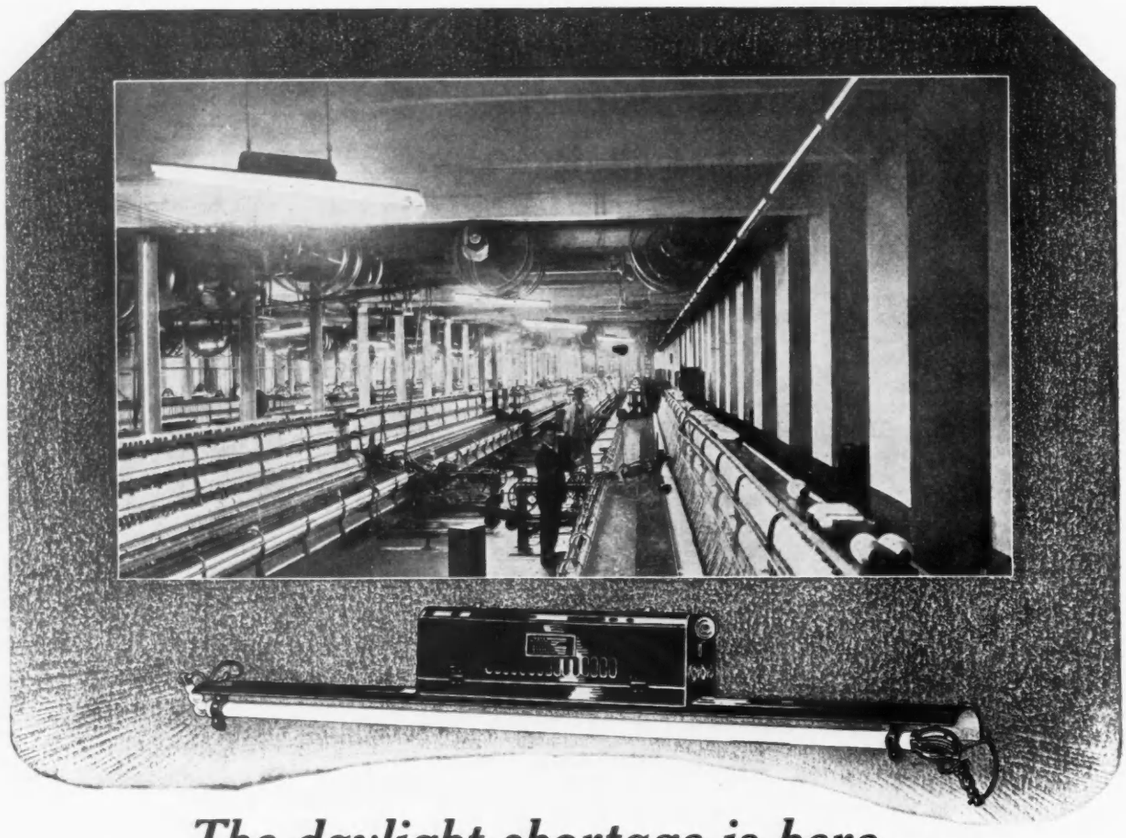
The absolute humidity is the actual weight of moisture present, and is usually expressed in grains per cu. ft. of air, or pounds per thousand cubic feet. Most of the air with which we have to do in problems of ventilation is only partially saturated, and the ratio of the weight of the contained moisture to that which the air is capable of holding when fully saturated at the same temperature, is called the relative humidity.

For example, 1,000 cu. ft. of saturated air at a temperature of 35 deg. contains 0.34 pounds of moisture, while if heated to 75 deg. it can absorb 1.346 pounds before reaching point of saturation. If saturated air at a temperature of 35 deg. be heated to 75 deg., without an opportunity of absorbing more moisture, its relative humidity becomes $0.34 \div 1.346 = 0.253$, or 25.3 per cent. This variation in relative humidity for a fixed amount of moisture in the air at different temperatures is taken advantage of for the removal of moisture from dyehouses and similar spaces by the latest methods of ventilation.

Suppose on a certain day the outside temperature is 40 deg. and the relative humidity 53 per cent., in which case each 1,000 cu. ft. of air will contain 0.217 pounds of moisture. If this air is heated to 70 deg. by passing through a steam coil, is delivered to a room containing excessive moisture, and is then discharged at a temperature of say 80 deg. at a relative humidity of 92 per cent., it will carry out a certain quantity of moisture.

Exact Amount of Moisture

The exact amount of this moisture is determined as follows: From a hygrometric chart or table we find that under the assumed conditions each 1,000 cu. ft. of entering air contains 0.217 pounds of moisture, no moisture being allowed to reach it while passing through the heating coil. By the time it is discharged, it reaches a temperature of 80 deg. and is 92 per cent. saturated. From the table we find it then contains 1.444



The daylight shortage is here—

The picture shows a night view of mule spinners in the Crompton Mills, Crompton, R. I., photographed at night under Work-Light. Notice how clearly threads stand out, and the even intensity of the illumination.

PERHAPS, right from where you sit, you can hear the bang of punch presses, the swirl of automatic machines, the hum of spindles or the clackety-clack of looms. Sometimes your ears single out noises that tell you exactly what is happening at several different machines.

Every now and then a machine drops out. You miss it, and you wonder. Then, before you know it, it's back on the job. Nothing to worry about! It happens so often these short, dark winter days when everyone is "beefing" about light.

But you'd worry if someone was hurt—and you may swear a bit next morning when the production slips come in. And it doesn't help any, at any time of year, to see your tickets for spoiled material piling up.

Eyes get tired and brains get foggy from 3 o'clock on. Fingers fumble. Heads begin to droop. Machines jam. More goods are spoiled. More men get hurt. But hundreds of factories cut these troubles to the bone with Cooper Hewitt Work-Light.

Ford does it. So do Dodge Brothers, Holeproof Hosiery, Stehli Silks, Buick, Oakland, Crompton Mills, Stewart-Warner, Hudson-Essex, Steel Heddle Manufacturing Company, Waterman Fountain Pen and Continental Can.

Work-Light is eye-friendly yellow-green light, different from other light because it leaves out hot, wearying red rays. It keeps eyes wide open—and assures full 8-hour production any eight hours you may choose. Send for the Work-Light booklet today. Cooper Hewitt Electric Co., 85 River Street, Hoboken, N. J.

COOPER HEWITT

Work-Light

51 © C. H. E. Co., 1924

pounds of water, and has therefore absorbed 1.444—0.217=1.227 pounds of moisture from the air of the room, which it carries away through the vent flue.

Air used under this condition may be likened to a huge sponge, which absorbs water up to practically the point of saturation in passing through the room. In the illustration given, it has been assumed that the temperature of the air has been raised somewhat in its passage through the room, which would naturally be the case in dyehouse ventilation where there is a tendency to over-heating due to the large amount of steam rising from the kettles. This rise in temperature of the air not only tends to carry off the surplus heat, but also increases its moisture carrying capacity.

Carrying Capacity of the Air

It should be especially noted, in the practical application of this principle, that the working range is fixed by the outside temperature and humidity of the air, together with that at

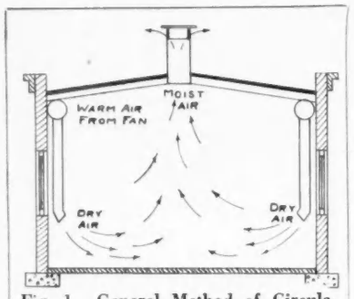


Fig. 1. General Method of Circulation.

which it leaves the room, and not by the temperature at which it is admitted, the latter being simply an intermediate stage.

While more complete tables should be obtained for any extended work along this line, the following figures are interesting as showing the carrying capacity of saturated air at different temperatures:

Temp. of air (deg. F.)	Pounds of moisture per 1000 cu. ft.	Temp. of air (deg. F.)	Pounds of moisture per 1000 cu. ft.
0	0.081	65	0.977
10	0.125	70	1.148
20	0.189	75	1.346
30	0.273	80	1.382
35	0.340	85	1.832
40	0.410	90	2.131
45	0.492	95	2.469
50	0.587	100	2.851
55	0.700	110	3.766
60	0.828	120	4.924

In applying the principles above described to practical uses in the ventilation of dyehouses or other spaces having a high humidity, the general method is to admit large volumes of warm, dry air near the floor, which in rising, absorb moisture nearly to the point of saturation, and are then discharged through the roof by means of suitable vent shafts.

Operation of the System

This operation is illustrated diagrammatically in Fig. 1, the entering air being warmed by passing around steam coils and then discharged into the room under a slight pressure by means of a fan. The upward movement is caused partly by this pressure effect and partly by the rise in temperature of the air, due to the heat given off by the hot liquids. With this arrangement the lower portion of the room, occupied by the workmen, is filled with air at a suitable temperature and humidity for comfort, well above the dew-point, so there is no fogging. As it rises toward the ceiling, it absorbs more and more moisture, but is kept slightly below the point of saturation for its maximum temperature, so that steam is not formed until it enters the ventilating shafts which carry it outside.

The methods employed for maintaining the proper relation between air volume, temperature, and moisture content are engineering problems which will be touched upon later in the present article.

A typical ventilating layout for a dyehouse or finishing room is shown in Fig. 2, where the upper story is used for other purposes. In this case, a false ceiling is provided, sloping upward from the outer walls to the vent flue at the center. Fresh, warm air is furnished by two hot blast outfits connecting with main distributing

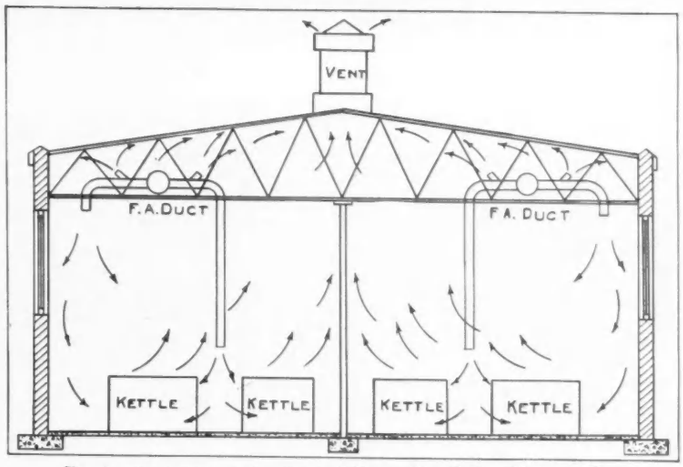


Fig. 3. Arrangement for General Room Ventilation Without Hoods.

ducts carried in the furred space above the false ceiling.

Three Supply Inlets

There are three sets of supply inlets, as follows: First, those delivering air near the floor along the outer walls; second, those blowing thin jets along the underside of the false ceiling; and third, those admitting a small amount into the furred space to prevent the gathering of moisture and the consequent rotting of the building construction. The general scheme of air movement is indicated by the arrows; that delivered near the floor supplying the operatives and carrying the vapor upward toward the vent flue, while the upper inlets furnish a thin sheet of warm air along the ceiling, thus preventing condensation and dripping at this point. The main vent shafts should not be more than 20 or 25 ft. apart, and should be properly insulated and drained to prevent any dripping upon fabrics in process of manufacture, or on operatives.

Another scheme for general room ventilation, operating upon the same principle but varying somewhat in detail, is shown in Fig. 3. Part of the air is discharged directly downward along the outer walls through the short outlet pipes, while longer downtakes deliver a similar amount to the alleys between the kettles. Warm, dry air is also discharged in small streams at a comparatively high velocity against the under side of the roof in such a way as to drive the rising moist air away from the outer walls toward the vent openings at the center, and also to prevent it from coming in direct contact with the cool roof, which would tend to reduce its temperature below the dew-point and so produce condensation and dripping.

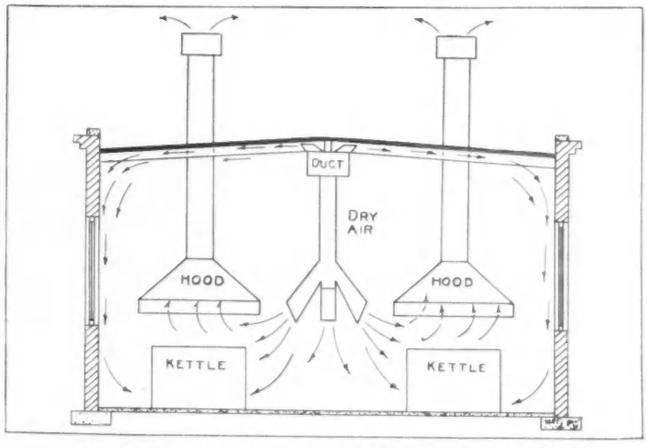


Fig. 4. Typical Arrangement for Ventilation Through Hoods.

Use of Individual Hoods

Thus far we have only shown arrangements for general room ventilation without attempting to confine the steam to its source. In general, it is both easier and preferable to catch the moisture as it is liberated, without allowing it to become diffused throughout the air of the room. Such a scheme is shown in Fig. 4, which illustrates a standard method of dyehouse ventilation.

In this case, the bulk of the warm, dry air is delivered at frequent intervals to the alley between the ket-

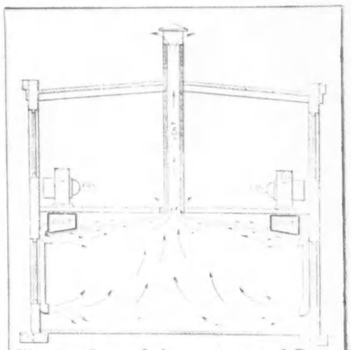


Fig. 2. General Arrangement of Dyehouse.

tles, and other steam-producing equipment, by downtakes of the general form shown. The individual outlets should be provided with diffusing vanes and dampers for regulating the flow of air.

The vapor and heat from the kettles cause a current of warm air to flow upward through the hoods and connecting vent stacks, the latter being insulated so as to reduce their cooling effect as much as possible. Air to replace that drawn off through the hoods is supplied by the downtakes, as previously described; and, having a low relative humidity, it readily absorbs the steam or moisture rising from the kettles. It carries this moisture along to the outer atmosphere.

Jets of Air Near Ceiling

Of course a certain amount of moisture finds its way into the room, and in order to prevent this from collecting on the cooler ceiling and walls, jets of warm, dry air are blown from the main duct at a high velocity along the under side of the roof. As they strike the outer walls, they are deflected downward as shown by the arrows, thus forming a protecting sheet over these cooler surfaces and preventing, to a large extent, contact with the moist air and the resulting condensation.

Sometimes conditions are such that

When Press-time is less than 10 Minutes Away

The make-up man at McGraw-Hill Publishing Co. picked up the telegram, glanced at the clock and leaned toward the P-A-X telephone. With two quick turns of its dial he secured a direct connection with the press room foreman. "Correction on the Burns Boiler ad on page 85 of 'Power'. Add over the logo, 'Write for new Catalogue and Prices'."

"I got it," said the foreman, and he snapped down the receiver and ran his finger along the press schedule. Turning back to the P-A-X phone he "dialled" the composing room and repeated the correction.

Less than a minute had elapsed since the make-up man first read the telegram. A vital minute when a magazine is going to press.

The P-A-X saves 18 seconds on every call because it gives instant, accurate and automatic connections. There is no operator to delay or to give the wrong number.

Nearly 2,000 users, in every field of business, find the P-A-X a vital necessity and one that actually pays for itself in a short time by saving operators' salaries. For 24 hours a day it handles all their inter-communication calls with that dispatch and precision that speeds up routine and clears the way for bigger business.

Besides Interior Telephony, the Automatic Electric Services of the P-A-X include and co-ordinate Code Call, Conference Wire, Executives' Priority Service, etc.

The P-A-X is similar to the Automatic Telephone equipment being so widely adopted for city service. It augments and completes but neither supplants nor connects with local or long distance telephone service.

Automatic Electric Company

Originators of the P-A-X. For more than 30 years the engineers, designers and manufacturers of the Automatic Telephone in use the world over. Home Office and Factory, Chicago, Ill. Branch Offices: NEW YORK, 21 East Fortieth St.; CLEVELAND, Cuyahoga Bldg. Representatives in all principal cities. **In Canada—Address:** Northern Electric Co., Ltd., 121 Shearer St., Montreal, P. Q. **Abroad—Address:** International Automatic Telephone Co., Norfolk House, Norfolk Street, Strand, London, W. C. 2, England. **In Australia—Address:** Automatic Telephones, Ltd., Mendes Chambers, Castlereagh St., Sydney, Australia.

steam is produced at widely separated points in large rooms, so that small individual ventilating systems are more desirable than general room ventilation, as previously described in connection with Figs. 2 and 3. Such an arrangement is shown in Fig. 5, and consists of a hood of sufficient size to cover the steam-producing equipment, provided with an exhaust fan at the base of the vent shaft as indicated.

The Diaphragm

In order to prevent steam from passing from under the edge of the hood it is furnished with a diaphragm, slightly smaller so as to leave a slot some 2 or 2½ inches in width around the perimeter. For a given volume of air removal, this produces a much higher velocity of flow (500 or 600 ft. per minute) and prevents steam or moist air from passing beyond the edge of the hood. Sometimes this scheme is modified somewhat by placing two or three openings in the center of the diaphragm, so as to dispose of a part of the steam before it reaches the edge of the hood. When this is done, the slot around the perimeter should be narrowed sufficiently to keep the over-all draft area the same and not reduce the velocity of flow.

In the illustrations shown, we have brought out several different methods. The best one to use will depend upon local conditions, and in many cases a combination of two or more of these may give the most satisfactory results. For the arrangement of equipment employed in modern dyehouses, that shown in Fig. 4 is probably used more frequently than any other, making such minor changes of course as are necessary to adapt it to the case in hand.

Engineering Data

In an article of this length, it is impossible to go into details of design, and the object in the present case is simply to suggest possible methods for further development. There are, however, certain simple calculations which may be of general use in this connection for making approximate estimates and checking up conditions of various kinds.

Among the questions one first asks are: At what temperature should the fresh air be admitted? How much will be required to carry off the vapor? How much steam will be required to heat the air? How much power will be required to deliver it to the room? In a general way, dry air cannot be blown directly upon workmen at a temperature much below 70 deg. without discomfort or a feeling of cool drafts; and at 75 or 76 deg. they begin to feel uncomfortably warm.

Usually the air is admitted at a temperature of 70 to 74 deg., unless special conditions relating to the method of heating the building require a different treatment. The volume of air, of course, depends upon the initial and final temperatures and relative humidity at each; also upon the weight of vapor to be removed in a given time. The carrying capacity of air is easily determined for different conditions by the use of psychrometric tables as previously noted. The weight of moisture to be removed is not so easily determined, and requires considerable experience to estimate with any degree of accuracy. The maximum vapor is given off when the dye is kept at the boiling point and the cloth passed through it by means of reels.

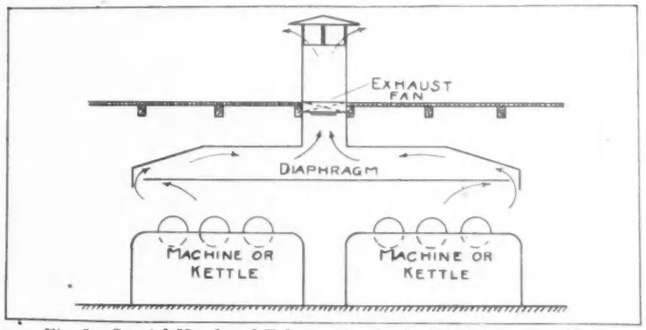


Fig. 5. Special Hood and Exhaust Fan for Isolated Sources of Steam.

It is common practice to provide for a complete change of air every 2 to 10 minutes, according to the processes carried on in the room and the method of removal employed.

Various Calculations

The quantity of heat required to raise the temperature of air through any range is given by the formula

$$H = \frac{V \times T}{55}$$

in which
H = the required heat, in B. T. U.
V = the volume of air, in cubic feet.
T = the rise in temperature, in deg. F.

The weight of steam required may be found by dividing H, as given by the above formula, by the latent heat at the pressure used. This for one pound gauge is 968; and for 5 pounds, 960. The required power input to the motor driving the fan will vary with the size of the outfit, the length of ducts, air velocity, number of turns, etc. For average conditions, allow 1 H.P. for each 3,000 to 4,000 cu. ft. of air moved per minute.

Fire Protection in Winter

Precautions Against Freezing of Fire Appliances—Small Freeze-up May Result in Plant Destruction

UNLESS extreme vigilance is exercised the very best installation of fire appliances may suffer temporary disablement from frost. Automatic sprinkler systems, hydrants and all appliances using water for fire extinguishment naturally require special care and attention in winter. The National Fire Protection Association recommends that the following precautions be taken, inspections being thorough, with nothing taken for granted:

Sprinkler Equipment

Be sure that engineer or supervising employe is fully posted as to the purpose and intention of every valve and pipe. It is also essential that the night watchman should understand the operation of all valves and the importance of giving proper and prompt alarm. See that all portions of buildings are properly heated at all times to prevent freezing in any of the sprinkler pipes, particular attention being given to exposed places such as hallways, entries, stair towers, elevator shafts, shipping rooms, attics, roof monitors and skylights, and spaces between ground and first floor and under sidewalks. Entire systems have been rendered inoperative through neglect of such locations. To be safe from freezing a temperature of at least 40 deg. F. should be maintained.

Examine tanks and all pipes, fittings and valves, whether for steam heating, general water service, or fire protection. See that none is frozen or has been frozen, and that they are all in operative condition, and where there is any liability of freezing, provide the necessary protection. Besides seeing that tank heaters are in proper order, it is important to make certain that they are of adequate capacity for the tanks they serve. Both heaters and circulating pipes should be cleaned of any rust or sediment. Tanks should be cleaned and tank supports properly painted.

Examine carefully and provide suitable boxing around any pipe lines which may be in exposed locations (either between ground and first floor, between buildings, or near windows, etc.). Make frequent tests during the winter in order to make sure the piping is free from frost. Open joints or gaps in the boxing are a prolific source of trouble. It is essential that all such defects be discovered and remedied forthwith. Joist channels and tank platforms are places of special danger in this respect.

Dry Valves

See that sprinkler dry valves are in working order, not leaking, and that alarm connection and gong are in operative condition. Should a valve trip and, without giving an alarm, admit water into the pipes where it may remain undiscovered, freezing is liable to occur with disastrous results. Make sure that piping in dry systems is thoroughly drained and that the system holds air pressure well. All pipes should drain back to the dry valve. In cases where this is impossible, drip valves should be installed at low points, and these should be carefully watched during cold weather. Drip valve outlets should be plugged as a safeguard against leaking or tampering.

Dry pipe valve closets should be properly constructed and permanently heated, preferably by steam, electric heater, or gas heater with flame properly protected. Lanterns and oil stoves, if used in emergency, should receive constant and careful supervision; the hazard of heaters of this character is intensified if the closet is not provided with a fire resistive lining.

Fire Pumps

Ascertain by test that pumps are in condition for immediate service. Every pump should be started at least once a week, and water discharged through relief valve or other outlet. In the case of steam pumps, see that steam connections and traps are in perfect order. Ample steam should be maintained at all times. In the case of electric pumps all wiring and connections should be thoroughly examined and tested.

Give special attention to the heating of pump rooms. The temperature in these rooms must not be allowed to fall to a point at which there will be danger of freezing. Examine the ends of suction pipes to see that leaves or other refuse matter have not clogged holes in strainers. The capacity of a pump may be greatly reduced by this condition. Clean suction wells and examine intake pipes to well. See that there is a good supply of lubricating oil on hand.

Test all hydrants and post indicator valves. See that they are well oiled and that hydrants drain properly. Where hose is provided at hydrants it should be kept connected to outlets and free from water. Make special examination of inside standpipes and connections, bearing the hazards of freezing particularly in mind. Test the water curtain (open sprinklers) before the cold weather season begins. See that valves are tight and that all pipes are thoroughly drained. Hydrants and hose houses, post indicator valves, valve pits, etc., should all be kept free from ice and snow and should be accessible at all times.

Chemical Extinguishers

Anti-freeze extinguishers normally employing solutions which will withstand temperatures as low as 40 deg. below zero require no special attention in cold weather. When extinguishers are not of the anti-freeze type, the following precautions should be observed:

See that no extinguishers of these types are exposed to temperatures lower than 40 deg. F. Diluted sulphuric acid may freeze at a higher

INVESTIGATE

the Economic Possibilities of Burning

FAMOUS READING ANTHRACITE

The burning of the small sizes of anthracite produces heat, power and steam in abundance —but no smoke. High heat-producing energy is obtainable with anthracite without loss in the various processing departments by smoke.

Equipment for burning barley, buckwheat and rice for generating steam and providing heat, is now available.

BUCKWHEAT

RICE BARLEY

The

Philadelphia and Reading Coal and Iron Company

General Office

Reading Terminal Philadelphia

You're cutting your bills for artificial light—
Eliminating necessity for frequent re-paintings—
Increasing the efficiency of your operatives by sparing their eyes—
With every dollar you invest in

TRADE OJACO MARK

MILL WHITE

"STAYS WHITE LONGER"

Oliver Johnson & Co. Inc.

Makers of Paints for All Industrial Purposes

18-24 Custom House Street
Providence

Save the surface and you save all"—Paint & Varnish

OJACO DISTRIBUTORS

BOSTON, MASS., Lewis F. Tracy Company
FALL RIVER, MASS., Wm. F. Harticon
CHARLOTTE, N. C., Charlotte Supply Co.
GREENVILLE. S. C., Frank R. Henry & Co.
WOONSOCKET, R. I., Pinault & Choquette
COLUMBIA, S. C., Columbia Paint Co., Inc.
SYRACUSE, N. Y., Paragon Plaster Company
UTICA, N. Y., American Hard Wall Plaster Co.
ROCHESTER, N. Y.. E. P. Van Hosen Co.

temperature than water, and at from 36 to 38 deg. F., there is likely to be material precipitation in the soda solution. Low temperatures may also produce a noticeable retardation of action even though precipitation is not evident. The freezing point of the soda solution is practically that of pure water.

Absolutely prohibit the addition of "non-freezing" compounds of any character to the contents of these extinguishers. Extinguishers have frequently been rendered inoperative by this means, and fatalities are on record, due to bursting of extinguishers as a result of corrosion induced by such treatment. The addition of salt or calcium chloride to the soda solution causes chemical changes which defeat the essential principle of operation of these appliances.

General Precautions

Instruct the night watchman thoroughly in the use of all fire apparatus, the operation of all valves, and the proper method of giving alarm. Employ only able-bodied and intelligent men of good character in this important position. Place thermometers in the colder portions of the plant and keep close watch upon temperatures during severe weather. Have all broken windows and skylights repaired and all outside doors made thoroughly weathertight. See that no attic ventilators are left open to the outer air.

Secure maximum efficiency from available heating equipment by having all boilers and flues cleaned before winter arrives. To thaw water pipes that have become frozen, wrap the frozen section with cotton cloth and pour hot water upon it until the ice in the pipe gives way. Rags on the floor at the base of or under the pipe will absorb the waste water. If the freezing is too severe to yield to this treatment, send for a plumber. Good results have also been secured by use of electricity where proper apparatus was available.

A burning match, torch or open flame of any description should never be employed to thaw pipes. To wrap the pipes in oil-soaked rags and set them on fire is worse than folly; it is incendiarism. Pipes are almost invariably adjacent to walls or partitions where there is an ascending current of air to feed and spread a flame. Even if the flame does not start a fire, its sudden local heat may cause the pipe to break and flood the premises with water.

Make sure that yards around buildings are kept clean and in good order. Obstructions such as lumber and miscellaneous storage, at all times undesirable, may interfere very seriously with the handling of hose streams in a fire occurring after a heavy snowfall, particularly at night. At all times consult and cooperate to the utmost with the inspection department having jurisdiction. Also do not fail to call upon your local fire department for advice and help.

Effect of Overheating

Reduces Output and Increases Disease and Accidents—Value of Automatic Temperature Control

WITHIN the last two years, some definite and accurate knowledge of the harmful effect of overheating on health and the output of workers has been brought to light by the New York State Commission on Ventilation, and by the Safety Institute of America, which was established by a group of industrial leaders to conserve the vital resources of industry. C. E. A. Winslow, professor of Public Health, Yale University, and Health Supervisor of the Safety Institute of America, has given the following very interesting information about the effect of overheating on production, which is reprinted from *The Thermostat*, published by The Powers Regulator Company.

The problem of factory ventilation is frequently complicated by the presence of poisonous fumes or irritant dusts given off in the course of special industrial processes. At present we will consider only the problems which arise in the ordinary factory workroom where the air is vitiated only by human occupancy and by the combustion of illuminants.

The discomfort which is experienced in such a workplace, if it be badly ventilated, is often attributed to the lack of oxygen, or to the presence of carbon dioxide or some mysterious organic poison. Recent studies have shown these views to be erroneous. The climbers who have striven to scale the heights of Mt. Everest do indeed suffer at those high altitudes from a lack of oxygen, but in the ordinary occupied room, however badly ventilated, there is always an ample supply of oxygen to meet any physiological need.

Carbon dioxide is present in excess in a crowded, badly ventilated room, but the excess is never sufficient to exert any harmful influence upon health or comfort. As to the supposedly harmful organic substances, the "crowd poison" once believed to be given off in the breath, they simply do not exist.

Overheating Reduces Output

Careful and exhaustive studies in England, in Germany and in the United States, particularly those made by the New York State Commission on Ventilation, have demonstrated beyond any question that the discomfort experienced in a badly ventilated room is due not to any of these subtle chemical influences but to the simple fact that the air of such a room is almost certain to be overheated. It is a high atmospheric temperature, combined with a lack of air movement, and sometimes with an excess of humidity, which is responsible for the evils of bad ventilation.

The fact that these evils are not due to "crowd poison" does not make them any the less real or important. Indeed it is difficult to overestimate the seriousness of the burden imposed upon industry by a lack of attention to the problems of air conditioning.

In the first place the studies conducted by the New York State Commission on Ventilation have made it certain that the actual output of the worker must be directly affected by the temperature to which he is exposed. Its careful investigations indicated that an increase in room temperature from 68 deg. to 75 deg. might be accompanied by a decrease in the amount of work performed amounting to 15% while a further increase to 86 deg. caused a decrease of 28%.

The lassitude and disinclination to active work which directly results from exposure to an overheated atmosphere is less important, however, than the indirect result which manifests itself in increased susceptibility to respiratory disease. It is preeminently the person who passes from an overheated room into the chill outside air of winter who succumbs to colds and similar infections. In the New York studies, to which reference has been made, there was an excess of nearly 75% in absence due to respiratory disease among a large group of children in overheated schoolrooms as compared with a similar group in rooms maintained between 66 deg. and 67 deg.

Most Workrooms Overheated

When one recalls a series of observations made in New York State industrial establishments of various kinds which showed 72% of the workrooms were at a temperature over 72 deg. and 29 per cent. at a temperature over 79 deg., it is obvious that the loss in health and output due to overheating is very considerable.

This is not surprising when you consider that a heating system is designed to heat a building properly during severely cold weather. In Chicago, for example, only 5% of each heating season can be classed as "severely cold," so that during the remainder of the season overheating is quite common, especially in those factories which have an abundant supply of exhaust steam available for heating.

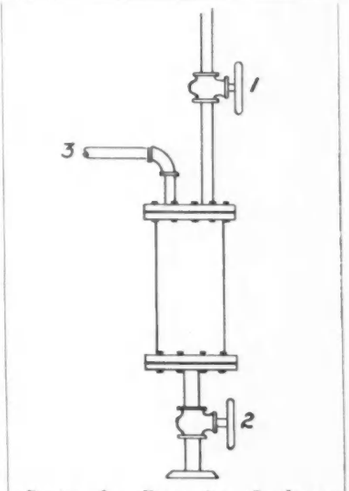
Do not the foregoing facts show that a small investment in automatic temperature control for workrooms will pay big dividends in increased production, and in a decrease in the number of workers absent and partially incapacitated due to respiratory disease? And when only a 7 degree increase in temperature reduces output of men 15% (over 2% for one degree), is it not evident that close, accurate and dependable control will quickly pay for itself?

Dry-Finishing Steam

A Useful Attachment for Preventing Injury to Finish

By *Ex-Finisher*

In the finishing of certain goods, the use of the steaming attachment connected with the double-acting brush in the dry finishing department is of importance, and should be given careful attention. Goods that are felted and are to be finished without napping, such as meltons, mackinaws and cassimeres that are to have the "natural finish," are benefited by being given a run on this machine with a liberal supply of steam, in order to loosen and raise the fibres that might otherwise come up on the surface of the cloth in the sponging or subsequent wearing.



Device for Preventing Condensate from Entering Steam Box.

By this treatment the cloth is in better condition for shearing, making possible a uniform and level face and a clearness of the pattern that is most desirable. This treatment also removes any marks that are likely to be made by the contact of the cloth with the extension rolls of the dryer, especially when it becomes necessary to stop the machine during the drying process.

Reduce Force of Steam

Steaming as a final process to destroy the gloss and raspy feel produced by the pressing, and to lift and soften the face of velours and other nap-faced goods, should be done with great care in order to avoid, as far as possible, any injury to the compactness of the cloth produced by the pressing. To this end it is necessary to secure a proper volume of steam, and to guard against its being forced into or through the cloth. The steam attachment is usually covered with a well felted cloth drawn tightly across it, which serves to check the force of the steam without impairing its effectiveness upon the face of the cloth.

The rolls connected with the steamer should be adjusted so that there will be a space of at least one inch between the cover and the cloth, and great care should be taken to keep the cover from becoming wet from the condensate that accumulates

Insure Your Insurance

The purpose of insurance is to reimburse an owner for the loss of property through fire. If the policies do not "cover" the value of the property at the time the fire occurs the owner cannot collect his full share.

What is the **present** value of your property? The only way to answer this is by a correct appraisal.

Appraisals made by The Ballinger Company are backed by forty-four years of experience in the design and supervision of construction of industrial plants, commercial buildings and institutional buildings of all kinds. The cost data used in appraisals has been compiled during a long term of years (and continually revised) by an estimating department that is constantly in contact with actual building and equipment costs.

We will gladly give you an estimate of the cost of appraising your property without obligating you in the least.

THE BALLINGER COMPANY

Architects Engineers
Appraisers

S. E. Cor. 12th and Chestnut Sts.
Philadelphia, Pa.

100 East 42nd St.
New York City, N. Y.

What is a Cheap Floor?

Is one made of soft wood cheap? Not if it splinters and injures material in process and wears into ruts to interfere with walking and trucking.

Is one made of concrete cheap? Not if it "dusts," injuring the goods and affecting the comfort, if not the health of operatives.

On the other hand a floor made of Chief Brand Hardwood is cheap, if we use this word in the sense of value received for money invested.

This material outlasts floors made of either wood, concrete or artificial material and it presents a fine smooth appearance.

KERRY & HANSON FLOORING CO.
Grayling, Michigan

Carolina Representative: M. C. Thompson Co.
105 Latta Arcade Bldg., Charlotte, N. C.

"CHIEF BRAND" HARDWOODS

"BIGELOW" MAPLE FLOORING

The Product of

Michigan Hard Rock Maple

The Hard Maple from this section excels the product from any other locality in the hard, even texture that insures the greatest durability and finest appearance. The well known wearing qualities of Hard Maple have made this wood ideal for FACTORY FLOORS.

Our facilities enable us to give prompt service on large quantities

KNEELAND - BIGELOW CO.

BAY CITY **MICHIGAN**

in the steam pipes. This can be done by turning on the steam carefully, with the exhaust valve wide open until only live steam appears, before starting the machine. If the steamer cover becomes wet it will cause an irregular volume of steam and imperfect results.

A Useful Attachment

The best safeguard against the danger of the condensate causing trouble is a steam connection as shown in the accompanying illustration. The use of a steam drum made from about 14 inches of 4-inch cast iron pipe, with connections as indicated by the figures 1, 2 and 3, will make it impossible for any condensate to enter the steam box.

By opening the valve indicated at figure 1, to secure the desired amount of steam, and opening the valve at 2 sufficiently to let off the condensate at the bottom of the drum, only steam free from undue moisture will pass through the pipe marked 3 into the steamer and to the cloth. By keeping the exhaust valve leading from the steamer open slightly, the best possible results may be secured.

In preparing the cloth for steaming it should be laid down with the ends wired together, or so that they can be wired while the machine is running. In this way the cloth may be run continuously during the steaming process. Care should be taken to avoid an excess of steam, using only enough to remove the gloss from the face of the cloth.

Air Compressor Notes

Random Suggestions from a Mechanical Superintendent

Receivers on air compressor systems should be drained regularly and frequently of the accumulated oil. If this is not done it is possible for gases to form which might ignite and cause explosions.

* * *

Cold intake air is advisable for air compressors, not only for better mechanical operation of the compressor, but by reason of the greater economy obtainable. There is a gain in efficiency of about 1 per cent for every 5 degrees lower temperature of the intake air.

* * *

Never use kerosene or in fact any oil for cleaning the inside of air compressor cylinders and receivers. The vapor therefrom remaining in the system might ignite and cause an explosion. The best material for this cleaning is a strong solution of soap suds introduced by means of the lubricator.

* * *

The pipe leading into the air receiver from the compressor should be connected near the top of the receiver, while the outgoing air should be taken from near the bottom.

* * *

Compressors should not be allowed to operate for any length of time with a leaky discharge valve. Compressed air at high temperature will be drawn back into the cylinder on the suction stroke, will become more heated on the pressure stroke, and so on. This if continued will cause overheating of the valves and cylinders and will increase the carbon deposits. If a discharge valve gets hotter than ordinary it is a sign that it is leaking.

* * *

Oil for use in lubricating the air cylinders of compressors should be pure mineral, not compounded with animal or vegetable oils, and it should be a filtered oil. Oils of too high flash point, as for instance over 500 degrees F., are objectionable except for very high temperature conditions, since they tend to produce carbon deposits.

* * *

Air receivers should be as close to the compressors as possible, and preferably outside the building. There should be no valve between the compressor cylinders and the receiver.

* * *

Water-jacket passages on air compressors should be kept clear and clean for efficient operation. This may be done by frequent washing out with strong currents of water.

* * *

Two essentials are necessary for the satisfactory operation of humidifying systems of the atomizer type using compressed air—clean air and clean water. Failure to supply either of these will cause the atomizers to become foul and clog, the water will not properly atomize, and will deposit upon the machinery and floors. At the same time the air will not be sufficiently humidified.

German Exhaust-Steam Practice

Digest of Paper Presented by a German Authority at the World Power Conference

By *H. Treitel*

REDUCING steam pressure by throttling is a waste, because the opportunity of producing power is missed. The aim of exhaust-steam engineering is to convert into useful work the whole available temperature drop. The lower limit is fixed, but there is considerable room for raising the upper limit. It will be shown in the following by what means and to what extent mechanical engineering and German industry in general have been able to profit by these considerations.

In the simplest case, where the steam demand normally exceeds the corresponding power demand, the back-pressure turbine or engine is utilized to advantage. One of the chief fields is sugar refineries, where the present tendency is to use a single back-pressure machine for the whole plant. The pressures on these units are gradually being raised. At the same time vacuum stages in evaporators are being done away with. Similar conditions prevail in other industries, such as dye works.

Next come bleeding machines. Of all the steam turbines under 12,000 kw. supplied during the last five years by the largest manufacturers in Germany, no less than 43 per cent were for the use or delivery of low-pressure steam. Because of the varying distribution of load, such turbines must be carefully designed. Many processes require a fixed pressure at the bleeding point. This can be accomplished by a governor which controls the steam inlet of both high-pressure and low-pressure parts simultaneously. Bleeding and back-pressure turbines are now equal to reciprocating engines, which were formerly considered superior. There are several works, chiefly in the chemical industry, using bleeding turbines as large as 6,000-kw. and delivering 43 tons of steam per hour at pressures ranging from 65 to 90 lb. per square inch.

Bleeding turbines exhausting to process are frequently installed to give steam at two different pressures, but where the power load does not correspond with the heating load such processes may be better handled in certain cases by condensing turbines with two bleeding points. Multiple-cylinder machines have been developed for this purpose. When the first bleeding point is at relatively high pressure (around 100 lb.) the boiler pressure should be high enough to make the conversion of energy in the high-pressure stage worth while.

Some pulp mills use a bleeding turbine and a back-pressure turbine on the same shaft. Both turbines are fed with live steam from the boilers and are governed in such a manner that the pressure at the two points from which the supply of steam is taken remains constant when the load fluctuates.

In another instance (a paper mill) a bleeder-type back-pressure turbine is coupled to a condensing turbine. In this set the condensing part can be disconnected when desired, thus avoiding the no-load losses for this part of the plant. If the demand for heat is small compared with that for power, large condensing turbines are installed and in addition a reducing turbine, of one of the types referred to, which is regulated to deliver steam at a constant back pressure. The energy it supplies varies according to the demand for steam.

Hot Water Supplies

In industries requiring hot water, such as chemical works, wool washing and other cleaning processes, the ordinary condensing plant is used for heating water, its circulation being choked either by hand or automatically. Storage tanks equalize supply and demand. Storage takes place periodically, during which times the plant will run with an artificially reduced vacuum, but otherwise with a maximum vacuum.

For using the lower ranges of pressure low-pressure and mixed-pressure turbines are used as in other countries.

Looking at the country as a whole, centralization and decentralization of power are going on at the same time. On the one hand the large central-station companies are absorbing many of the small independent power stations; on the other, numerous industrial concerns find that by combining the production of power and heat, they can produce their own electricity more cheaply than they can buy it. In non-condensing plants this is generally the case when the power load exceeds 50 hp. In the case of bleeding turbines the minimum power load that can be produced profitably is about 300 hp.

This method of operation is very desirable from the point of view of national economy. On the other hand, wherever there are industries that do not require exhaust steam, it is equally justifiable for them to shut down their own power plants. The consequence of this development is that as far as the market in Germany is concerned, turbines for industrial purposes are only in exceptional cases of the ordinary condensing type.

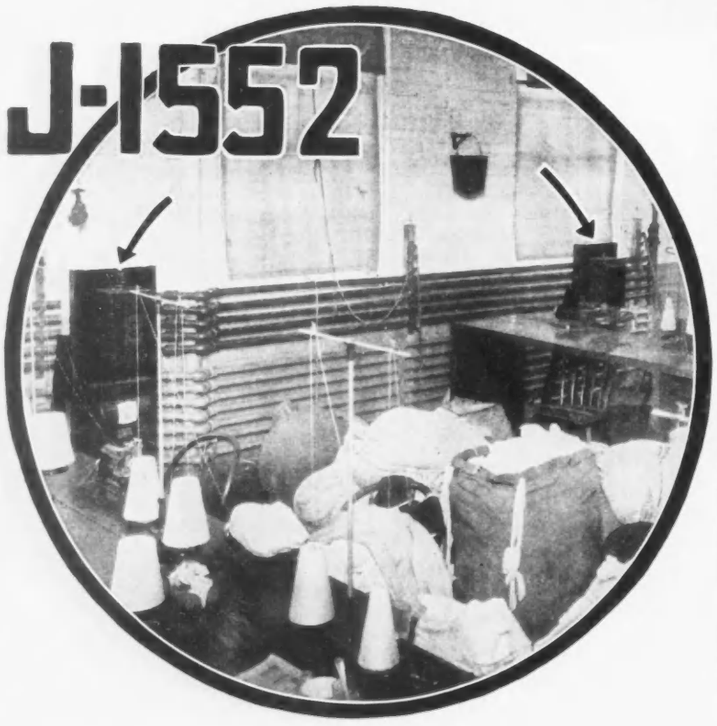
Much consideration is being given to the connecting together of available power stations, such as those of the lignite mines. The short-circuits experienced in small plants are localized by a selective protective system. The government has co-operated in obtaining rights of way across private property for steam pipes or electric lines where these were necessary for national economy.

By-Product Power

Attention is also being given to the interchange of energy between private plants and central stations. There is some opposition from the central stations, but such a development seems to be for the public interest. One public official in South Germany allowed private industrial concerns one kilogram (2.2 lb.) of good coal for each kilowatt hour turned into the public main. This was during a period of coal shortage.

While induction generators that can be switched in like motors have been considered as a means of facilitating the linking up of the large number of small works for the supply of surplus energy, the bad effect of these upon the power factor has led to general preference for the synchronous generators. When the demand for exhaust steam is small, these sets feed a wattless current into the network. This is paid for according to a special schedule. The number of installations supplying public heat is still very small.

The avoidance of exhaust losses by the use of back-pressure or bleeding machines goes hand in hand with higher steam pressures. Today the upper limit of pressure for standard boilers is about 500 lb. A pulp mill is being rearranged for a single back-pressure machine taking steam at 450 lb. and exhausting at 115 lb. to a digester, the fluctuating demand of which is equalized by a Ruths' accu-



Guard Your Plant Against Fires, Accidents and Delays

J-1552 Across-the-Line Starter

For induction motors up to 10 horse power. One set of relays can be adjusted to take care of any motor from one to 5 horse power. Another set from 7½ to 10 horse power.

The Cadet Hosiery Company of Philadelphia appreciates the protection afforded by J-1552 push-button starters. The fire hazard in a mill filled with textiles is tremendous, yet in the above picture J-1552 switches are installed in the midst of heaps of hosiery. The steel cabinet enclosing the J-1552 avoids fire hazards.

Accidents to workers are avoided with the J-1552 switch. A touch of the button starts and stops the motor without the slightest danger to the operator.

The J-1552 protects motors and machinery against abuse better than fuses. The overload relays automatically trip the switch under continued overload and stop the motor. A touch of the button restarts the motor instantly. No time wasted searching for new fuses—no idle machines while the operator looks for the electrician.

J-1552 protection for men, motors and machines is explained in the new J-1552 Bulletin. Write for your copy today.

Allen-Bradley Co.

ELECTRIC CONTROLLING APPARATUS

Sales Offices: Baltimore, Birmingham, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Denver, Detroit

Sales Offices: Knoxville, Los Angeles, New York, Philadelphia, Pittsburgh, Saint Louis, Saint Paul, San Francisco, Seattle

General Offices and Factory: 498 Clinton Street Milwaukee, Wisconsin

mulator. It is a remarkable fact that for this plant the cost of power is no greater than are the production costs for the same amount of water power. Another possibility of improvement is found in lowering the back pressure, but here the prejudice of the manufacturing foremen must, in many cases, be overcome.

Recovery from Drying Process

One of the largest heat-consuming industries in Germany is that of lignite briquet manufacture. Experiments have been begun recently on a large scale to obtain not only the energy from the steam before it is used for drying, but further to utilize the heat contained in the evaporated moisture for power production. The vapor leaving the driers is cooled somewhat to eliminate dust and air, and is then used to evaporate pure steam suitable for use in low-pressure turbines. An intermediate part of the energy head is employed for manufacturing processes.

As a means of equalizing inequalities between the power and heating loads lasting an hour or more, the Ruths' accumulator has excited much interest and has been installed in many places.

The men behind these developments in Germany have been mainly the large electrical and mechanical manufacturers. The purchasers have largely left it to the manufacturers to study their problems and recommend the proper apparatus.

Business News

Link-Belt Erects New Warehouse and Office at Detroit

Owing to the greatly increased demand for Link-Belt products and close range service, the Link-Belt Co. has erected a new warehouse and office building at 5938 Linsdale Avenue. The building recently being completed, the

New Warehouse and Office Building of Link-Belt Co. at Detroit

Detroit branch has moved to their new home, from their former quarters on Woodward Avenue.

The new structure is two stories and houses not only the general office for the Detroit branch but a large warehouse where standard Link-Belt and H. W. Caldwell & Son Co. products are kept in readiness for immediate shipment. This stock includes the various types of chains for elevating, conveying and power transmission purposes, sprockets, clutches, malleable iron elevator buckets, etc.

In commenting upon the acquisition of the new home, B. H. Lundahl, manager of the Link-Belt Detroit Office, said: "Our Detroit office has grown with the city of Detroit and we are very optimistic regarding our future. We are confident that the establishment of large stocks in Detroit will enable us to materially better our heretofore good service, thus being of greater benefit to our many customers throughout this territory."

Reviews History of Proctor & Schwartz

The *Philadelphia Public Ledger* in a recent issue gave a detailed history of the development of the present business of Proctor & Schwartz, Inc., textile machinery builders, in their column entitled "In the Workshop of the World." In it they listed this concern as among those of the country which have materially aided the speeding-up of industrial operations and the revolution of industries to which their products are sold.

Installed in New Plant

Chauncey A. Williams of Manchester, N. H., manufacturer of latch needles, who recently purchased the Currier Needle Co., has installed the machinery of the Wm. Coney plant in the new factory. He is now in a position to guarantee even better facilities than ever. His needles are sold under the trade mark of CAW.

Business Literature

TRUSCON MAINTENANCE MAP. Truscon Laboratories, Detroit.

In the form of a handy wall hanger, this maintenance map indicates correct use of the various paints and other products of the company in industrial plants. A maintenance guide lists the proper preservatives to use in all parts of the factory, on every kind of a base.

A table of useful information gives the quantity of paint required to cover definite units of space on different surfaces, similar estimates applying to varnishes, approximate figures on spray painting, the necessary mixture of cement, gravel, etc., per cubic yard of concrete, etc.

CATALOG OF MAJOR PRODUCTS. Combustion Engineering Corp., New York.

A reprint of the five pages occupied by this company in the 1914-25 A. S. M. E. Condensed Catalog. This booklet is a compact index to the principal products of the Combustion Engineering Corp., such as Lopulco pulverized fuel system, C-E Fin Furnace, C-E Air Heater, Raymond pulverizers, traveling grate stokers, chain grate stokers, underfeed stokers, furnaces, grates, etc.

TESTS OF A STEAM GENERATING UNIT AT A MUNICIPAL POWER PLANT. Heine Boiler Co., St. Louis, Mo.

This is a reprint of an article by J. E. Woodwell, consulting engineer, which appeared in a recent issue of *Power*. It recites the results of tests of the new Heine V-type Bent-tube boiler, made under strictly routine operating conditions.

THE NEW SARCO STEAM TRAP. Sarco Co., New York.

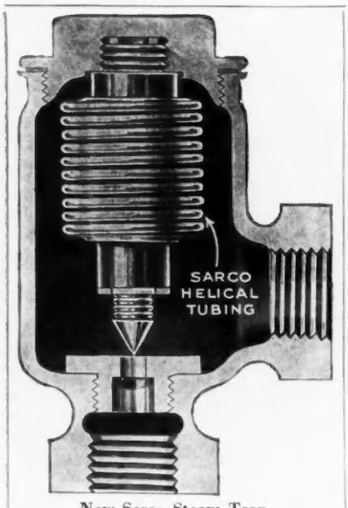
A new single sheet leaflet in two colors describes the new Sarco Steam Trap No. 9. This is a development of the Sarco steam trap for high and low pressure, but is factory adjusted and designed for widely varying pressure as well as for steady pressure.

NEW MACHINERY AND PROCESSES

Steam Trap

For Use Over a Range of from 0 to 100 Lbs.

To meet the demand for a factory adjusted steam trap capable of use over a range of from 0 to 100 lbs., the Sarco Company, Inc., of New York, have placed their special helical tubing to a new use. They have designed a "balanced pressure" steam trap which while possessing advantages of thermostatic operation is independent of pressure variation. It is known as the No. 9 Sarco steam trap. The new model uses a seamless tube of heavy bronze, deeply corrugated in helical form. The corrugations permit of extreme flexibility in a longitudinal direction, and the use of helical corrugations results in an even distribution of the movement, and therefore an even stressing of the metal, with long life. The thermostatic principle permits the construction of a trap at a low cost, small in size and easily installed. It has only one moving part.



New Sarco Steam Trap.

The trap can be installed without being levelled up. It needs merely to be screwed on to the pipe line. An important further consideration is that the trap being operated thermostatically cannot air bind, because the effect of air on the thermostatic element is to contract it and open the valve. As the port size is fixed, the trap may be used for different pressures without changing the port seat. This is an important consideration where steam traps are used in factories having a range of steam pressures.

In the course of much experimental work involved in the construction of the new steam trap, proportions were worked out that secure a balancing of pressure between the operating fluid and the steam, and this permits the discharge of condensation as quickly from high pressure steam as from low, despite the wide temperature variations. In action, the higher temperature of high pressure steam generates a higher pressure within the thermostatic element, and this balances against the higher steam pressure in the line, so that the trap actually works on a differential between pressure and temperature, and is effectively operative at any pressure within its range.

The new steam trap has large discharge area and high lift. Thus maximum capacity is provided. It should be of special interest for use on steam jacketed cooking vessels, line drips, high pressure heating coils, and for use as an automatic high pressure air vent, etc.

Device That Lowers Lamps

Allows Cleaning and Renewing with Convenience and Safety

One of the greatest problems in lamp maintenance is that of accessibility. The Thompson Electric Co., 226 St. Clair Ave., N. R., Cleveland, Ohio, has recently developed a disconnecting hanger which goes far toward a solution of the problem. The Thompson safety lowering switch, as it is called, makes it possible to lower high lamps away from the electric circuit in order to clean the reflectors or renew the bulbs without inconvenience or electrical hazard. It is inexpensive and may be included in present installations.

Many mills are quick to replace bulbs but are exceedingly lax in cleaning reflectors. The power of a reflector is easily and rapidly lost through the accumulation of dirt, and the measure of the value of the reflector is in the ability of its reflecting properties to bend the rays of light back and to deliver them, without loss of intensity, between useful angles in the working area. Obviously, it is as necessary to restore these reflecting properties whenever they become impaired by dirt as it is to refill a gasoline tank when it becomes empty.

And just because nobody thought to make provision for keeping them clean, thousands of high grade reflectors, all over the country, are now corroding away with dirt and rust, without performing the work for which they were purchased. It is not only dirt that prevents a reflector from performing its proper function, but it is dirt that destroys the reflector, because of the corrosive elements contained in it.

TAUNTON, MASS. The Taunton Coated Fabrics Works, Inc. has been granted a state charter to manufacture coated fabrics with a capital stock of $90,000. George K. Gardner, Murray F. Hall, Cambridge, Mass., and E. Cabot Storrow, Jr., Needham, Mass, are the incorporators.

Furnace Lining

One-Piece Lining That is Easily Installed

Seepage of air from the outside to the inside of the furnace, other than through the fuel bed, (usually called "excess air"), takes place through porous bricks, through fissures and cracks in the bricks themselves, through the joints between bricks and between brickwork and metal, and through warped and leaky inspection and cleaning doors. When it enters the furnace, it lowers the temperature of combustion; when it enters higher up it lowers the temperature of the gases sweeping the heating surfaces; and if of sufficient magnitude may cause trouble by causing local cooling and contraction. In each case it wastes fuel.

Installing a Monolithic Furnace Lining.

The Plibrico furnace lining, of the Jointless Fire Brick Co., 1130 Clay St., Chicago, gives a monolithic, jointless or one-piece lining. It constitutes a thick inside lining, keyed to the bricks, through which air cannot pass. It is impervious to air and by closing up the inside of the furnace keeps the heat in and the cold air out. No skilled labor is required for installation. The material is plastic and can be installed with a mallet and trowel, and pounded easily into shape.

Cracked, broken or burned-out parts of furnace linings may be repaired with this material by cutting out the defective part at least 4½ inches deep, removing all the old lining, in order that Plibrico may be keyed into it and pounding it in as in installing an entirely new lining. In case of emergency, when the fire cannot be drawn, balls can be made of Plibrico, placed on the end of a slice bar, and rammed in until the cavity is filled. It is said that such a patch job will run for weeks, until it is convenient to shut down and repair the furnace lining properly.

RECENT TEXTILE PATENTS

BOBBIN and producing same, Filled. 1,516,002. M. Curry, Scarsdale, N. Y.

BOBBIN stripper. 1,515,880. G. J. Pfeiffer, Providence, R. I.

CLOTH laying machine. 1,516,212. C. C. Schneider, St. Louis, Mo.

COMBING machine. 1,516,101. J. Jolly, Bolton, England.

DRYING machine. 1,515,671. F. L. Furbush, Westford, Mass.

FABRIC and making same, Unwoven. 1,515,792. R. B. Respess, New York, N. Y.

HOSIERY, Process for the manufacture of pockets or caps in articles of. 1,515,667. H. E. Esche, Chemitz, Germany.

KNITTING machines, Feeding means for. 1,516,342. F. E. Jones, Pawtucket, R. I.

KNITTING machines, Take-off mechanism for full fashioned. 1,515,599. H. Janssen, Wyomissing, Pa.

LACE for boots, shoes and other articles. 1,515,980. C. B. Walrond, Auckland, New Zealand.

LOOMS, Geared head motion for. 1,515,777. R. Laufer, Philadelphia, Pa.

LOOMS, Shuttle block for narrow ware. 1,515,859. E. R. Holmes, Worcester, Mass.

LOOMS, Temple thread cutter for. 1,515,609. J. Northrop, Hopedale, Mass.

LOOMS, Weft detector for. 1,515,896. R. G. Turner, Worcester, Mass.

LOOMS, Whipstick for Axminster. 1,515,838. E. E. Clark, Worcester, Mass.

PICKERS or openers, Feeding mechanism for. 1,515,672. F. L. Furbush, Westford, Mass.

PILE fabrics, Woven. 1,516,441. S. Kross, Chicago, Ill.

SPINNING machines. Feed roll for. 1,516,076. E. E. Bradley, Stonington, Conn.

Business Literature

A TREATISE ON STEAM CYLINDER LUBRICATION; E. F. Houghton & Co., Philadelphia, Pa.

This is an interesting 30-page booklet on steam engine cylinder lubrication, which has been compiled by the Houghton research staff. While published primarily in the interest of "Cyl-Tal," a concentrated lubricant for steam engine cylinders, the text will be found to contain a great deal of information that is not of an advertising nature. Among the various subjects discussed are friction, oil tests, and what "Cyl-Tal" is.

TYCOS INSTRUMENTS; Taylor Instrument Co., Rochester, N. Y.

This is a most complete catalog of Tycos instruments for the textile industry. A carefully prepared index makes possible ready reference to the uses in the various branches of the industry of the companies' products, consisting of industrial thermometers; recording and index thermometers; temperature, time and pressure regulators; engraved thermometers, hydrometers, barometers, etc. Relative humidity tables are an interesting feature, and a number of photographs of actual installations are reproduced.

LANE
CANVAS BASKETS

OBLONG STYLE

Made also square. Some are perforated for steaming. Others mounted on sturdy casters. All are perfectly smooth inside.

Have established an enviable reputation among mill men for economical and uniformly satisfactory performance.

Standard for 30 years

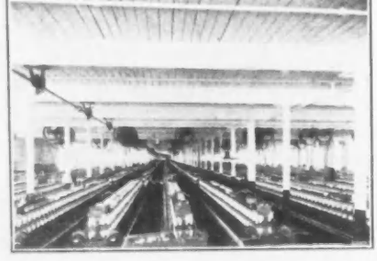
ROUND STYLE

All Lane baskets built on spring steel frame with flexible eye joints. The yielding quality of this construction prevents bending or breaking.

Write for Catalog No. 90.

W. T. LANE & BROS. — Manufacturers — POUGHKEEPSIE, N. Y.

CASWELL PAINTING SERVICE



One of a number of large textile mills painted by Caswell

Don't Stop Work to Paint!

Let Caswell do your mill painting without halting operations and reducing production. This expert service is actually less expensive than a painting by your own men since higher-quality, longer-lasting work is done with less paint.

Before painting we study your individual needs, and if you wish provide the paint in our opinion best suited. We can supply for our work, if specified, practically every brand of mill white, at a very low figure, since we buy paint in large quantities.

Ask to have a Caswell representative call and talk things over with you. A consultation costs you nothing.

Edward T. Caswell

Bates Kirby Bldg., New Bedford, Mass.

INDUSTRIAL PAINTING

Let CASWELL *paint your mill*

Spray Gun or Brush

EDWARD JEFFERSON

Importer of

Textile Machinery

19-21-23 South Second Street, Philadelphia

Boston Office: 246 Summer Street

SOLE AGENT FOR

HALL & STELLS, LTD., Keighley, England
Drawing, Spinning and Twisting
Bradford and French Systems

TAYLOR, WORDSWORTH & CO., Leeds, England
Wool Combing Machinery

KNOWLES & CO., Bradford, England
Dyeing, Bleaching and Finishing Machinery

GEORGE HODGSON, LTD., Bradford, England
Cloth Weaving Machinery

WM. SMITH & BROS., LTD., Heywood, England
Carpet and Plush Weaving Machinery

STEPHEN COTTON & CO., LTD., Belfast, Ireland
Flax, Hemp, Jute Machinery

BRADFORD STEEL PIN MFG. CO., LTD., Bradford, England
Steel Pins for Circles, Fallers, etc.

LONGCLOSE ENGINEERING CO., LTD., Leeds, England
Raw Stock, Top and Yarn Dyeing Machinery
(For United States only)

THEWLIS & CO., LTD., Huddersfield, England.
(Successors to Thewlis, Sellers & Co.)
Machinery for Finishing Pile Fabrics, Carpets, etc.

Worsted Mill Supplies

MILL NEWS

COTTON

New Construction and Additions

*Tallassee, Ala. The Mount Vernon-Woodberry Mills, Inc., are pushing construction on their 30,000 spindle and 1,500 loom addition. It will soon be ready for service. J. E. Sirrine & Co., Greenville, S. C., are the engineers in charge.

Banning, Ga. The Banning Cotton Mills are adding to their humidifying system and have placed contract with the American Moistening Co., Atlanta.

LaFayette, Ga. The LaFayette Cotton Mills have engaged Lockwood, Greene & Co., engineers of Atlanta, Ga. and Boston, Mass., to prepare plans and specifications for the complete electrification of their plant.

Woodstock, Ga. The Little River Mills are having various improvements made, including the installation of a complete new humidifying system by the American Moistening Co., Atlanta.

Biddeford, Me. The Pepperell Mfg. Co. has equipped its No. 3 mill with automatic spoolers and high speed warpers, supplied by the Barber-Colman Co., Boston, Mass., and Rockford, Ill.

*Natchez, Miss. The Cotton Mills Products Co. has completed the installation of new machinery and equipment in its No. 1 mill, at a cost of $120,000, and will place in operation at once.

*Spindale, N. C. The Spencer Mills have started construction of a weave shed to be 135 x 140 ft. It will cost between $125,000 and $150,000. There will be room for 200 looms but only 150 will be installed for initial operations. A number of new houses will be built for the additional operatives.

Philadelphia, Pa. The Brooks Bros. Co., Inc., is having plans prepared for the construction of an addition to its mill. Amos W. Barnes, Perry Building, is architect.

Philadelphia, Pa. Jacob Miller's Sons & Co., 16th & Reed Sts., shirtings, have awarded contract for alterations which will be made in their building, costing $6,000.

Scranton, Pa. The Scranton Lace Co. has awarded a contract to the Morton C. Tuttle Co., Boston, for the erection of a two-story mill, 62 x 175 ft., to be equipped for warping and winding and a one-story building, 57 x 123 ft., for general operating service. Work will be started at once.

*Apponaug, R. I. Work is now under way on the construction of an addition to the plant of the Narragansett Cotton Mills, Inc., which will double the present capacity. The size of the buildings will be increased from 16,400 sq. ft. to 22,700 sq. ft.

*Blacksburg, S. C. The Blacksburg Spinning Mills started the manufacture of 14s to 22s knitting yarns this week and the managers plan to engage a night shift about the first of the year. As previously reported, the Blacksburg Spinning Mills took over and equipped the plant of the Cash Mfg. Co.

*San Marcos, Tex. The Planters & Manufacturers Cotton Mills have started construction of their plant here. It will be a 10,000 spindle and 300 loom mill for the production of outing flannel. Lockwood, Greene & Co., Boston, are the engineers in charge.

* Indicates previous mention of project.

Fact and Gossip

Cordova, Ala. The Indian Head Mills of Alabama are now operating on full time with two shifts.

Montgomery, Ala. The Montgomery Cotton Mfg. Co. has resumed operations after being shut down since April. Enough orders are in hand to keep the mill busy day and night for a year, according to report.

Danielson, Conn. The Quinebaug Co. has posted notices informing employes of a wage cut to be effective immediately. The amount of reduction was not mentioned, but is expected to be at least 10%. Coupled with this notice was the announcement of full time operations.

Goodyear, Conn. The Goodyear Cotton Mills, Inc., have arranged for an immediate reduction of 10% in wages. The plant is running on a full time basis with full working force, and will continue on this schedule.

Wauregan, Conn. The Wauregan Co., has reduced wages of its employes 10%.

Bondsville, Mass. A wage reduction of 10% became effective on Dec. 1 at the Boston Duck Co.

Fall River, Mass. The Narragansett Mills have increased production about 25%. About half of the machinery is now running.

Millbury, Mass. The Cordis Mills, a Bliss, Fabyan & Co. unit, have made a 10% wage reduction effective on Dec. 1 and affecting about 200 employes. The mills are operating on full time.

Newburyport, Mass. The American Cotton Fabric Corp., is running its local mill on a 5-day week basis, replacing a 4-day week schedule, in effect for some time.

Saugus Center, Mass. The Colonial Braiding & Weaving Co. has been organized with capital of $75,000, to manufacture shoe laces, braids, cotton and woolen goods. A. J. Forde, 114 Malvern Ave., Melrose, Mass., is president; Charles R. Greco, Winchester, treasurer and Albert D. Rogers, clerk.

Thorndike, Mass. The Thorndike Co. put a 10% wage reduction in effect on Dec. 1. There was a strike in the mills recently when a cut was announced and the former scale was restored. The employes objected to a cut on the ground that other mills in the group of Bliss, Fabyan & Co., were not included.

Three Rivers, Mass. A cut of 10% in wages went into effect at the Palmer Mill of the Otis Co., on Dec. 1.

Ware, Mass. A 10% wage reduction became effective on Dec. 1 among the 825 employes of the cloth, yarn and shop departments of the Otis Co., which are operating on full time. The underwear department, operating on a basis of about six days a month, employing about 800, is not affected by the cut.

West Warren, Mass. The Warren Cotton Mills of the Thorndike Co. have announced a wage reduction of 10% in all departments, effective Dec. 1.

Somersworth, N. H. The Great Falls Mfg. Co. has resumed operations following a shut down for ten weeks. It is proposed to gradually increase production.

Cohoes, N. Y. The Harmony Mills have 3,700 looms running, according to Agent John A. Perkins.

Laurinburg, N. C. The four cotton mills of Laurinburg, the Dickson, Prince, Scotland and Waverly, are now running on full time.

Morganton, N. C. The Alpine Cotton Mills, one of the Erwin chain of mills, has started up on full time.

Rutherfordton, N. C. The Grace Cotton Mill Co. and the Cleghorn Mills are running full time, day and night, with full working force.

*Pawtucket, R. I. The incorporators of the Pawtucket Falls Mfg. Co., through Vice-president J. J. Bodell, and Secretary Arthur M. Allen, have filed an amendment to the charter of the company, changing the name to Goff Mills, Inc. This action was taken in accordance with the decision reached at the meeting of stockholders on Sept. 29.

Providence, R. I. The No. 4, and the Ann and Hope mills of the Lonsdale Co., at Lonsdale, were placed on full time schedules Dec. 1, when a wage reduction of 10% became effective. A wage readjustment has also been made in the company's Hope and Phenix mills. The other plants of the company are operating as they have been during the past few weeks and on the same wage scale.

Montreal, Que., Canada. The Dominion Textile Co., Ltd., has been working on full schedules for some time and prospects are that the mills will continue on this basis for the next four months.

WOOL

New Construction and Additions

Long Beach, Cal. The Pioneer-Pacific Worsted Co. which recently took over the Golden State Woolen Mills, is now making tentative plans for the erection of large warehouses here. While not definitely decided upon, it is planned to eventually erect a plant on a site owned by one of the board members at 108th St., and Central Ave. in Los Angeles.

Providence, R. I. The Crown Worsted Mills, are planning for the construction of an addition to their plant, to cost approximately $42,000. It is said that an architect will be selected at an early date.

*Woonsocket, R. I. The Jules Desurmont Worsted Co. is progressing with construction of an extension to its mill. When it is completed and all machinery installed, this company will have 38,400 mule spindles and 12,000 twisting spindles.

Fact and Gossip

Woodstock, Conn. It is reported that a woolen manufacturer, whose name is temporarily withheld, proposes to erect a plant in Woodstock to employ about 50 operatives. H. E. Back of Danielson, Conn., is attorney for the manufacturer.

Hinsdale, Mass. The Hinsdale Woolen Mills, Inc., are operating their carding and spinning departments three nights a week, and expect the mills to be producing its capacity by the end of the year. Five new spinning mules are being installed and a new dressing frame has been ordered.

Lawrence, Mass. The Pacific Mills, for the first time in over six months, has placed its entire printing plant in operation. The worsted department has been running at capacity for some time.

Millbury, Mass. All the mills in Millbury are now operating full time with the exception of the Felters Co., which is on a five-day schedule.

Milton, N. Y. The Storm King Woolen Co, is the name of a new concern recently chartered with $25,000 capital.

*Philadelphia, Pa. John J. McCloskey, receiver in equity for the Downingtown Woolen Mills, Inc., East Downingtown, Pa., formerly spinners of woolen yarns, has been instructed by the U. S. District Court, to sell all the remaining tangible assets, excluding cash, accounts receivable and records, at public auction.

Philadelphia, Pa. The machinery and equipment of the Purdy Worsted Mills, York & Mascher Sts., formerly manufacturers of men's wear fabrics, has been offered for sale. This concern operated 20 looms.

Mapleville, R. I. The Coronet Worsted Co's. holdings in the village of Mapleville for years owned by the late Col. Fletcher, are on the market and negotiations for the purchase of the same are said to be under way. The mills make worsted suitings.

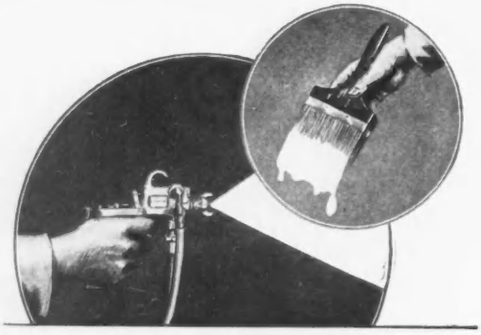
Montreal, Que., Can. Damage estimated at $70,000 was done in a fire which practically destroyed the premises of the Liberty Wool Co. at 19 St. Maurice St.

KNIT

New Construction and Additions

Box Air, Ala. The Danville Knitting Mills are having a new humidifying system installed. The American Moistening Co., Atlanta, has the contract.

*Rossville, Ga. The addition to the plant of the Richmond Hosiery Mills here will be used by the finishing and shipping departments. The extension will add 5,000 sq. ft. to the floor space available



Comparing Costs Shows 80% Saving

IT ISN'T the cost of materials that determines the economy of painting mill walls and ceilings or village homes—it's cost of labor.

When your painting is done with the DeVilbiss Spray-painting System it is done 5 times faster than hand-brushing—thereby reducing labor costs 80%. Besides effecting this big reduction in labor cost, the sprayed coating covers every bit of surface thoroughly and uniformly, without drips and spatters, and has twice the hiding power of a single brushed coat.

We should like to mail you further facts on the economies and advantages of painting the DeVilbiss way.

THE DeVILBISS MFG. CO. 236 Phillips Ave. TOLEDO, OHIO

DeVilbiss
Spray-painting System

Eliminate steps that cost you money

A valued employe interrupts his tasks to go on an errand in some other part of the mill—one that could have been handled with dispatch if a telephone system was available. Have you ever stopped to consider what these needless steps are costing you?

In just such instances as these Couch Telephone Systems come in mighty handy. They are indispensable aids to the various mill units, enabling them to work in unison. Congestion in the passageways is reduced.

S. H. Couch Co. are pioneers in the development of private telephone systems. May we send you our catalog?

S. H. COUCH CO., Inc.
Norfolk Downs, Mass.

337 W. Madison St., Chicago 170 Purchase St., Boston

PRIVATE Couch TELEPHONE TRADE MARK ESTABLISHED 1894 SYSTEMS

KEEP YOUR MOTORS AND TEXTILE MACHINERY CLEAN WITH A "MARVEL" BALL BEARING AIR COOLED PORTABLE BLOWER

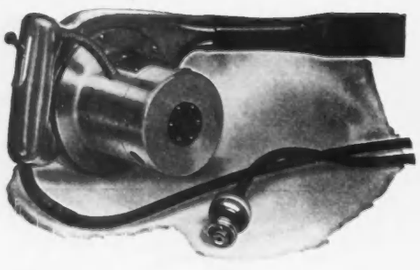
Reduce your FIRE HAZARD

Prolong the life of your machinery

Blower weighs 6½ lbs.
Shipping weight, 18 lbs.
20 feet highest grade electric cable, with armored plug cap.

One hand operated

Note toggle switch in handle
Well balanced
Examine cut of Blower carefully
Wires from motor to handle in metal tubing
Highest grade BALL BEARINGS
Gives 16" water column pressure
Shipped on 10-day trial, anywhere.



—$40.00 Net—

ELECTRIC BLOWER CO.

352 Atlantic Ave. BOSTON, (9) MASS.

Cleaning clearer boards and spinning frame without stopping operation

THE ALLINGTON & CURTIS MFG. CO.

565 Washington Blvd. Chicago, Ill. | Boston Mass. | 50 Church Street New York City

Vacuum Systems for Cleaning All Departments

Mill News—Continued

for these departments. W. H. Sears, Chattanooga, Tenn., is the architect.

*Bay City, Mich. The Evenknit Hosiery Mills have completed plans and will proceed with the erection of a new two-story mill, 50 x 100 ft., estimated to cost $17,000, exclusive of equipment.

*Philadelphia, Pa. The modern type of hosiery mill which is being erected for the Jasper Mfg. Co., a subsidiary of the Lehigh Silk Hosiery Mills, at Jasper & Butler Sts., will consist of a main mill, four stories, 90 x 220 ft.; a two story garage, 35 x 60 ft., the upper floor of which will be used as a cafeteria, hospital, rest rooms and social halls for employes, and a one story building, 35 x 200 ft., in which will be located the bleach house, dye-house, chemical laboratory, boiler and engine rooms. The construction will be fireproof and modern in every respect. The main building will be of the flat slab type of re-enforced concrete, and the remainder of beam and girder type of re-enforced concrete floor. The Turner Construction Co., is erecting this building from plans and specifications drawn by William H. Gravell, engineer, Philadelphia.

Reading, Pa. The Franklin Knitting Mills, New York, are looking for a building here in which to install 50 knitting machines, the beginning of a branch factory for hosiery production. Charles S. Hill, 466 Birch St., is local representative of the company.

Jellico, Tenn. The Campbell Knitting Mills, have awarded contract for 150 additional new knitting machines.

Fact and Gossip

Minneapolis, Minn. The Munsingwear Corp. resumed full time operations at its plant on Dec. 1.

Fultonville, N. Y. The Mohawk Glove Corp. is again running on full time schedules.

SILK

New Construction and Additions

Middletown, Conn. The Portland Silk Co., Inc., has awarded a general contract to the H. Wales Lines Co., Meriden, Conn., for a three-story, brick and steel mill addition, 65x170 ft., on which work will begin immediately. It is purposed to have the structure ready for service early in April.

New York, N. Y. The Franco Fabrics Corp. has been incorporated with capital of $100,000, to manufacture silk dress goods. Initial equipment will consist of 168 box looms. M. J. Frank is president and treasurer. The company is represented by Gilbert & Gilbert. 43 Exchange Place, New York.

Pittsboro, N. C. The Pompton Lakes Weaving Co., of Pompton Lakes, N. J., will locate its plant here. The decision was made Thursday morning when President Harry S. Gould and Treasurer Otto Zeigler, purchased the site for the location of the $150,000 plant which they expect to erect. The company manufactures silk and cotton woven labels.

Philadelphia, Pa. Oehrle Bros. & Co., 423 N. 3rd St., upholstery trimmings, etc., have awarded contract for alterations to their mill building to Evans-Steele, Inc., 2217 Chestnut St., which will cost about $3,000.

*Allentown, Pa. The Majestic Silk Mills, Inc., are taking bids on a general contract for the erection of a two-story and basement, reinforced-concrete addition.

Northampton, Pa. Mill No. 2 of the John H. Meyer Silk Corp. has been purchased by Benjamin A. Levinson, 30 E. 30th St., New York, who will take possession about Dec. 15.

Shamokin, Pa. J. H. & C. K. Eagle, Inc., have broken ground for an addition to their local mill. It is proposed to provide facilities for the employment of about 100 additional operatives.

Nashville, Tenn. The duPont Fibersilk Co., which expects to have the first unit of its plant, now being erected on the Old Hickory site, completed in January, plans to start construction of the second unit before, or immediately after completion of the first.

Fact and Gossip

Paterson, N. J. The Lexington Silk Co. will engage a night shift immediately.

Shamokin, Pa. J. H. & C. K. Eagle, Inc., have resumed full time operations in their plant.

Sunbury, Pa. The Susquehanna Silk Mills are now running on full schedules and indications point to continuance on this basis.

*Pawtucket, R. I. E. Butler of Providence has been appointed receiver of the Aracoma Textile Co., Inc., of Rhode Island, and the Guyan Mills Co., Inc. Mr. Butler's bond was fixed by the Superior Court at $40,000. The two concerns petitioned for receivership, following a suit for $150,000 which was brought by the Aracoma Textile Co., of New York.

DYE, BLEACH AND FINISH

New Construction and Additions

*Winston-Salem, N. C. The Hanes Dye & Finishing Co. is progressing with construction of its plant which will be a one story brick structure, 282 x 122 ft., and hopes to have it ready for operation by March. This newly organized company, capitalized for $300,000, will dye, bleach, and finish cotton piece goods. H. G. Chatham is president; Ralph P. Hanes, treasurer; H. A. Jolitz, agent, superintendent and buyer.

Fact and Gossip

*Fiskdale, Mass. Joseph McKenna, Southbridge, Mass., George G. Clapp, Boston, and F. A. Edgerly, Brighton, Mass., have been appointed by the referee in bankruptcy to appraise the property of the Fiskdale Finishing Co., which was petitioned in bankruptcy on Nov. 13 by Boston creditors. The company has been adjudicated bankrupt.

Sunbury, Pa. The Sunbury Converting Works have resumed full time operations and expect to continue on this schedule.

* Indicates previous mention of project.

VALUATIONS

WE have made appraisals of properties for owners and bankers, to be used as a basis for

Purchase and sale

Financing

Local assessment

Federal Taxes

Insurance

Accounting

Legal Proceedings,

Award for damages.

We are fully equipped to carry on this work.

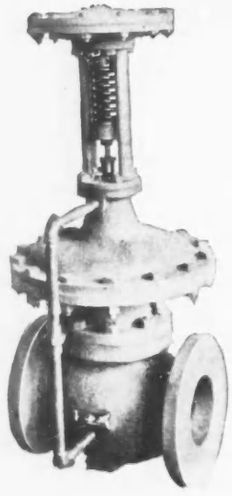
CHAS. T. MAIN
ENGINEER
200 DEVONSHIRE STREET
BOSTON, MASS.
AND
F & M BANK BLDG.
FORT WORTH, TEXAS

FOSTER ENGINEERING CO.

Main Office and Factory—Newark, N. J.

CHICAGO BOSTON PHILADELPHIA CLEVELAND LOS ANGELES

FOSTER ALTITUDE VALVE



Where it is required to maintain a uniform level in tanks, automatically and economically the Foster Altitude Valve, as illustrated, will give reliable and dependable service. Their cost is soon absorbed in the saving of labor and the resultant loss from overflowing tanks.

Having a practical knowledge of the results which can be obtained with this device it should command the attention of those who are large users of water from storage tanks and reservoirs.

We furnish this valve in sizes from 3" to 12", flanged connections.

If you attended the POWER SHOW this week, we hope you are one of the many who visited Booth 84 and inspected our EXHIBIT of

FOSTER VALVE SPECIALTIES

We will be glad to mail a copy of our Catalogue No. 50, if you did not obtain one.

Are foggy conditions hindering your workers?

"WHICHEVER WAY THE WIND DOTH BLOW, SOME HEART IS GLAD TO HAVE IT SO."

A vapor-laden, dank atmosphere is a constant handicap to those who are forced to work in it. It is a breeder of dissatisfaction among employes.

The V-W Special Ventilator draws out steam and moisture without permitting it to condense. In addition it removes foul air, smoke fumes and dust. The effect of such an efficient ventilator on working conditions is bound to be favorable. The worker's morale is strengthened—an improvement in the quantity and kind of work turned out is only natural.

Write for further data.

THE V-W VENTILATOR CO.

Columbus, Ohio

V-W

Eliminate this . . .

and this . . .

install Plibrico . . .

anyone can do it . . .

Walls of Plibrico far outlast fire brick

ARE you tired of continually replacing fire brick linings—of relining furnaces again and again after only a few months of service? If you are, you should replace your fire brick walls, next time, with walls of jointless Plibrico.

Plibrico will give many times the service of fire brick. It will cut down the loss of heat through the setting. The reason is simple. Pounded in with mallet and trowel, it is baked when heat is applied to form a wall without a single joint. The source of all furnace troubles is eliminated.

Don't you want to know more about this long-lived lining for textile mills? Ask for the new catalog—"Refractories and Furnace Design."

In over 80 cities warehouse stocks are maintained for immediate delivery or shipment. Plibrico is packed in cylindrical steel wooden-ended containers, as shown below, by a patented method.

PLIBRICO FURNACE LINING

Reg. U. S. Pat. Off.

JOINTLESS FIRE BRICK CO.

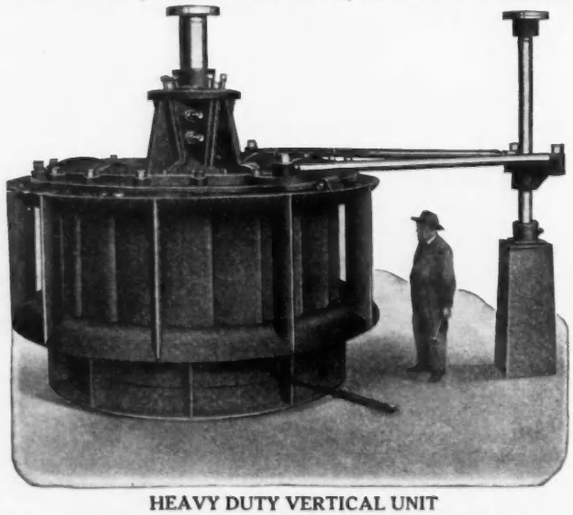
1156 CLAY ST., CHICAGO

TW12-6R-RTG

LEFFEL

TURBINE WATER WHEELS

HIGH SPEEDS, HIGH POWERS, HIGH EFFICIENCIES



HEAVY DUTY VERTICAL UNIT

WE WILL FORWARD BULLETINS UPON REQUEST

THE JAMES LEFFEL & CO., SPRINGFIELD, OHIO

BRANCH OFFICES:

NEW YORK, N. Y. ..... 39 Cortlandt St.
BOSTON, MASS. ..... 80 Boylston St.
ATLANTA, GA. ..... Fourth Nat'l Bank Building
MINNEAPOLIS, MINN. ..... Plymouth Building
LANCASTER, PA. ..... Woolworth Building
PETERBOROUGH, ONT., CANADA ..... William Hamilton Co., Ltd.

TECHNICAL SECTION

Unsolved Problems in Wool Manufacturing

Need for Further Consideration of Such Matters as Improving Sheep Breeding, Increasing Wool Production, Removing Kemps and Colored Fibres, Developing Substitutes for Wool, and Improving Various Machines and Processes—Interchanging Ideas with Other Textile Industries Would be Helpful

By *Brompton*

At the recent convention of the National Association of Cotton Manufacturers, N. T. Thomas, of the Nashua (N. H.) Manufacturing Co., called attention to the part that tradition and old customs have played in the operation of a cotton mill. He urged cotton manufacturers to study and analyze each operation with a view to improvement. This article is a similar discussion for woolen and worsted mill men. The author urges everyone connected with wool manufacturing, who has imagination and is capable of reasoning, to give more thought to possible improvements which will contribute ultimately to better products and larger production.

WITH the general development of industry, slow, primitive methods have given place to more rapid means of production, and the textile industry has taken a long step forward during the era of mechanical invention. Additions, developments, and improvements are being constantly made and no claim is advanced that finality has been reached in any direction. Those who are conversant with the industry appreciate the fact that the human element of skill and judgment plays a much larger part in textile manufacture than in most other industries, and particularly is this the case in the manufacture of fabrics from wool. That being so, it will be readily understood that the textile industry is not without its problems, some of which may be indicated briefly under three chief headings: namely, (1) materials, (2) machines, and (3) methods.

The Raw Material

The materials available for the textile industry are widely different in their nature and properties, and hence in their utility, but as our consideration of problems must be limited, attention will be confined to the manufacture of fabrics from wool. So far as raw material is concerned, nature has been generous in giving a large variety of wools which differ very considerably in fineness, quality, and usefulness; and in this respect there is more variation than in any other of the associated textile industries. This renders the material suitable for a large variety of purposes, but at the same time the variation in material calls for considerable skill and judgment in the selection of the right raw stock for any particular requirement.

So far, much improvement has been produced in wool by skillful selection in breeding, particular care being given to the question of uniformity. To the spinner this is an important point, as it is generally admitted that, to get the best results in spinning, uniformity in quality and length is the primary necessity in the raw material. Can any improvement be made in this respect by sheep breeders, or has finality been reached? That is the problem which the wool grower must consider.

There is the problem of kemps in wool. These grow along with wool, not at the same rate in length but thicker in character. Further, they differ structurally from the better type of wool, and by their behavior in certain manufacturing processes one is led to the conclusion that they differ in chemical composition, and there is no doubt that they are widely different in their physical properties. Kemps in wool not only depreciate its value from a manufacturing point of view, but they also limit its usefulness to a considerable extent. There are two lines along which a solution of the problem might be sought. (1) Can they be eradicated from the fleeces by careful breeding? (2) Can they be treated along with wool so that they will work similarly in all respects? Obviously, eradication is the better method if it be possible, and there is no doubt that the second problem will be difficult to solve. Colored hairs in wool otherwise white are objectionable, particularly for certain classes of goods. Their elimination would be an advantage.

Volume of Production

Another problem with regard to wool production is that of an increase in volume, the need of which is already felt. So far, sheep have been acclimatized in the temperate zone, and the wool industry when practiced on a large scale is usually at the "verge of civilization." The area of supply, therefore, is limited, and the production from this area is not increasing at the same rate as the demand. Owing to the developments of industry, new countries are being opened up, sheep are pushed further afield, and wool growing areas in some regions have been diverted to the raising of cattle and the production of cereals.

The problem of wool supply is becoming increasingly urgent and demands attention. The following questions call for an answer: (1) Can the wool growing areas be extended into the rich, tropical lands? (2) Can sheep be produced which will give a heavier weight of wool? (3) Can a suitable substitute be found for wool?

With regard to the second question, it may be said that there is evidence of development in this direction, and an example is furnished by the weight per fleece of merino wool as compared with thirty years ago. The development of the wool growing area depends on the production of an animal suitable for the conditions. Is this possible; and if possible, is it not worthy of careful consideration? The basis of the woolen and worsted trade is wool, and the cry is for more wool.

The problem of finding a substitute for wool is not being neglected. Cotton is not a substitute for wool. It may be used along with wool, but it lacks the essential properties of wool which make the latter such a valuable material for clothing purposes. Compared with wool, cotton is lacking both in handle and in warmth. Further, it creases badly owing to its lack of elasticity. The production of an uncreasable cotton fabric would be a boon, and would extend the use of cotton considerably. Unlike wool, cotton is used for a variety of commercial purposes, but wool is used chiefly for the comfort and clothing of mankind. There is an increasing demand, but the supply is not developing at the same rate by a wide margin.

Machinery and Methods

Machinery and methods are more or less correlated and may be considered together. Let it be said at the outset that a careful study of the machinery and methods used in yarn and cloth making in the woolen, worsted and cotton industries would probably produce some useful ideas. Industries tend to become water-tight compartments to some extent, and particularly is this the case with localized industries, such as woolen, worsted and cotton. In the engineering profession, which is distributed to a much greater extent, there is an interchange of men between one section and another, and consequently an interchange of thoughts and ideas, means and methods. That this is beneficial to the whole there can be no doubt, and it is suggested that some similar arrangement might be considered in the textile industry.

The woolen yarn making side of the textile industry is a branch which is run by rule of thumb methods probably more than any other branch, though it must be admitted in fairness that there is no part of the industry where the results are so much dependent on individual skill and judgment.

However, there is something radically wrong when two firms engaged on the same blend of materials to be used for the same purpose are getting from their carding machines output which varies as 1 is to 2. Surely here is something which demands careful investigation. The problem of carding production in the woolen trade is one of pressing importance. The tape condenser needs to be tried out against the double doffer and the single ring doffer, both as regards the quantity of material obtainable and the quality of thread produced. Any quality is not a negligible factor.

Mule Versus Ring Frame

Again, there is the question of spinning woolen yarns on the mule and ring frame. It is easily conceivable that the two types of machines produce threads which differ somewhat in their characteristic features. But consider the machines. No one will deny that the spinning machines, especially the mule, contain mechanisms which are ingenious and effective for the purpose for which they were designed. However, from the point of view of space occupied and power required to operate it, the mule certainly compares unfavorably with the ring frame. From an engineering aspect, the moving of the carriage is not good practice. The movement of a large mass such as a mule carriage from one dead stop to another, a distance of 5 or 6 feet, and then returning it to a starting point (all in half a minute, more or less), is neither economical of power, nor good engineering practice.

What is desired is a good continuous spinning machine, and the ring

frame fulfills this function so far. The points in which it fails at present should be studied until the defects are overcome. Perfection may be difficult of attainment, but shall we sit down and say that the mule is the end of all things in woolen spinning? It may produce a particular type of yarn, but is the mule the only means of producing the type of yarn considered perfect?

Worsted yarn making is much more systematized than woolen yarn spinning. It must be admitted at once that organization is easier; because in worsted yarn making, materials which are similar in quality are worked together, and a process is introduced which is designed to secure regularity and fair uniformity as regards length. One of the problems for the worsted industry is the further development of means for working up the short wools now available.

Weaving Problems

The electrification of fibres is a problem facing both the woolen and worsted trade; and some easy, simple means of dealing with it in an economical and effective manner is desired. The preparation of yarns for weaving is apparently a simple problem, but there are many little difficulties to overcome yet before perfection is reached. The variable tension on yarns drawn from bobbins in warping, for example, is a difficulty for which an inexpensive and simple remedy is badly wanted. The utilization of single worsted yarns for warps depends to some extent on their preparation, and investigations in this direction might yield results of far reaching importance in the manufacture of fabrics. Good threads, uniformly laid on beams are a first consideration in manufacturing. The merits of beam warping as compared with Scotch mill warping, where warps are plain or where a number of pieces are to be made the same pattern, is worthy of careful examination from the point of view of economy, increased production, and good warps.

Weaving machines to an engineer are a sequence of lateral motions, resulting in loss of time and waste of energy. The picking motion, that power absorbing arrangement by which the speed of the loom is limited, needs careful examination with a view to a removal of the shock and jar. As in the case of the mule, the question crops up, are these methods fixed for all time? Is there not another way of producing the bulk of fabrics made, approximately 80% of which are plain cloths?

Many attempts have been made at the production of a circular loom in which the movements should be rotary, and therefore allow a higher speed, but the fabrics produced have been relatively loosely made. To be successful, such a loom must produce fabrics as firm and dense as those produced by existing looms. It would also be a decided advantage to arrange the loom so that changes could easily and readily be effected. The present day loom is easily adaptable to a wide variety of goods. The weak spot is the picking mechanism. Can a simpler, equally effective, but more economic method be devised?

Finishing Problems

Cloth finishing also has a number of equally interesting problems to offer, the solution of which would contribute to economy and improvement. The problems are chemical, mechanical, and physical in their origin and scope. The cleansing of fabrics needs careful consideration. The object of this is to remove the accumulated dirt and various substances which have been added to the material to facilitate working. Here we would suggest that the oils used in blending should be carefully selected. Oil facilitates working, and when it has done this it should be capable of being removed easily and economically. Oil is a means to an end and not an end in itself. Obviously, wool oil is closely related to cloth scouring. The selection of a suitable oil should be considered in relation to greasing the wool, and also with regard to its easy removal in scouring.

Again, the methods of cleansing by emulsions and volatile agents, from the point of view of efficiency and economy, opens up a problem which is worthy of full investigation. Water softening during the last few years has undergone a number of developments, and these are being generally adopted. But a larger question is involved in the conservation of water. This may not affect the immediate present, but is bound to be forced to the front as larger industrial areas are developed. Under present conditions large quantities of water are used in finishing.

Cloth fulling presents a variety of problems. It is a fact which has been known for years that cloths can be fulled either in alkaline or acid solutions. These need careful investigation with regard to detail, method and economy as compared with soap fulling, and also with regard to the relative value of the fabric from the point of view of handle and appearance. There are three essential factors in fulling—heat, moisture, and pressure. The details with regard to heat and moisture need to be worked out, as there are conditions with regard to both which give better results than other conditions. What are they in exact terms?

All through the industry, from the wool to the finished cloth, processes need to be examined from the point of view of final results and production. The determination of the conditions should be followed by devices by which they can be effectively controlled. This tends towards standardizing, and contributes ultimately to good work and larger production.

Construction of Cheviot Suitings

Wide Range of Fabrics in This Class—Representative Examples of Popular Types

By *Designer*

CHEVIOT suitings comprise a very wide range of woolen cloths and with the exception of the finer cheviot fabrics are usually easily distinguished from Saxony fabrics. The fabrics may differ in the quality of wool used, the counts of yarn, and the structure, but they have all somewhat

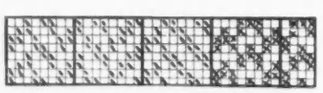


Fig. 1.

similar characteristics such as roughness of surface and crisp handling qualities. Most of the cloths are noted for their hard wearing and warmth retaining properties.

The wools used in their construction range from coarse blackface to fine crossbred. Most of the British cheviot is used in the production of woolen tweeds and is usually blended with British and colonial crossbred wools of similar quality. All of these wools are excellent for use in the cheviot mixture suiting on account of their brightness. Most of the wools are in a fairly open condition and are not as troublesome in carding as the finer Saxony qualities. With dyed shades for mixtures more care is necessary in order to get the material well carded for condensing.

On account of the wide range of wool qualities used for the different types of fabric, there is a greater variety of counts used than with Saxony tweeds. These range from 1 run to 6 run yarn. The finer counts are frequently used for twisting where the type of cloth requires twist yarns of contrasted shades, but, as in the finer woolen fabrics, the majority of fabrics are made from single yarns. Novelty yarns also are the main factor of some of these fabrics. Carded nop yarns are used in nearly all the fabrics made for sport wear. These cloths generally require very little actual designing at the loom as the ground shades are so rich in coloring. Mock or imitation marl yarns are also used to some extent to imitate the twist yarn fabrics.

Men's and Sport Wear

The structure of the fabrics varies considerably and cloths which are loose, medium and firm in construction are all met with. Color styles, including mixtures, marls, and dyed shades, are combined for subdued styles with stripe and check styles contrasted with the ground colorings. Weave styles, made by combining two or more weaves by drawing-in and pegging, are all included in the popular cloths for men's wear. The demand for sport wear cloths has caused many firms to make new cloths or modify standard cloths to meet the requirements of popular fashion. The cheviot fabric is excellent for cloths of this description and an extremely good trade is being done in these cloths at present.

A few examples of popular cloths and styles are given in the following particulars and illustrate the very wide range of fabrics which are included under this heading:

Cheviot cloths made from rough yarns, that is, with nops of the same color as the ground, are much used to further develop the rough characteristics of the cloth. These are frequently described as homespuns and are usually easily distinguished from the finer cheviot suitings. The particulars of a good cloth are as follows: Warp, 1½ run white rough yarn, 22 threads per inch, 68 in. wide in reed. Filling, 1½ run black rough yarn, 20 picks per inch, 10 ozs. per yard, 58 in. wide. The cloth requires only the simplest routine in finishing. It is scoured, losing about 15% of its gray weight, and is fulled slightly. The cloth is not cropped after tentering but is allowed to retain its rough fibrous surface. The weave used is 2/2 twill with simple arrangements on four harnesses, such as herringbone stripes. Solid colors are used in warp and filling, but these do not show the weave style as clearly and are frequently ornamented with stripe and check styles of bright colors.

Construction of Sportex

The plain weave is used for cloths which are required to be firm in make. Many of these are made in twist yarns and have excellent wearing properties. These cloths are practically "made" in the loom; that is, they are woven with a close set, and this adds to the crispness of handle due to the quality of wool used. The particulars of a cloth described as "Sportex" are as follows: Warp, 3 run white twisted with 3 run black, 21 ends per inch, 64 in. wide in loom. Filling, same yarn as warp, 21 picks per inch. In this cloth we have another example of a simple finishing routine. The pieces are scoured and fulled in one operation. There is no pressing, but the pieces are finally treated in a steam blowing machine.

Stripe styles are usually the main decoration in the finer cheviot suitings. Worsted and silk yarns are extensively used for this purpose. The stripe styles are obtained by drafting the ground weave for weave stripes, by introducing fancy threads for ground, or by cramming extra threads in the reed. The latter method requires considerable skill on the part of the designer to obtain the best effect by the use of extra silk or worsted threads in these cloths. It is not uncommon to have cloths containing many silk threads which are almost entirely concealed by the rough surface of the fabric. This is invari-

ably due to the use of too fine silk threads or to the overcrowding of the reed dent with the silk fancies.

A weave stripe style is illustrated by Fig. 1. The ground weave is a 2/2 twill but the feature of the pattern is the section marked in crosses. The weave style is best developed by using white warp and black filling or softer contrasts with dark shades for the filling. The particulars of the cloth are as follows: Warp and filling; 3 run yarn, 36 ends per inch, 66 in. wide in reed, 36 picks per in., 16 ozs. per yard, 58 in. wide.

Other neat stripe styles are obtained by drawing-in and have the advantage that only a small number of harnesses are required.

Silk and Worsted Stripes

Line stripes of silk and worsted are introduced into the finer suiting cloths and the simplest form is that in which the fancies are substituted for the ground by cramming the threads in the dent. These stripes differ from each other in color, spacing and accentuation. They are applied to nearly all the cheviot suitings which are of medium and fine construction. The following particulars include a popular style for 2/2 twill weave: Warp, 4½ run blue gray, 8; 18/2 and 30/2 spun silk, red twisted with white, 2; 4½ run blue gray, 8; 18/2 and 30/2 spun silk, red twisted with white, 2; 4½ run blue gray, 20; 18/2 and 30/2 spun silk, green twisted with white, 4; 4½ run blue gray, 12. There are 46 ends per inch and the warp is 66 in. wide in reed. Filling, 4½ run black, 46 picks per inch, 13 ozs. per yard, 58 in. wide.

The design is illustrated by Fig. 2, the position of the fancies being indicated by full squares. The above cloth is made from mixture yarns for warp and solid dyed shades for filling, and a very wide range of colorings are obtained.

Another very successful cheviot suiting is the "Bannockburn," which is made with twist yarn and single yarn arranged one and one, warp and filling. The twists are usually made of contrasting colors and a very wide range of twists are employed which are usually divided into three groups, black and color, white and color, and color and color. The latter when used should be put in the warp, as shaded pieces very often result from the use of bright colored twists in the filling. Two or even three shuttles should be used on the twists when used in the filling. The particulars of a typical fabric are as follows:

Warp		
2½ run dark brown	1	7 times
4½ run twisted with 6 run green and white	1	
2½ run dark brown	1	
4½ run twisted with 6 run brown and white	1	
2½ run dark brown	1	
15/2 spun silk green	1	
18/2 twisted 30/2 spun silk black and white	2	
15/2 spun silk scarlet	1	

There are 35 ends per inch of ground, and the warp is set 66 in. wide in reed.

Filling	
2½ run black	1
4½ run twisted with 6 run black and white	1
2½ run black	1
4½ run twisted with 6 run black and white	1

There are 35 picks per inch and the

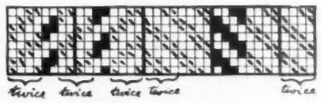


Fig. 2.

cloth weighs 19 ozs. per yard, 58 inches wide.

The weave is illustrated by Fig 3, and is 2/2 twill ground with crammed stripe. The four silk threads take the place of three ground threads. Owing to the brightness of the twist yarns used, brighter fancies should be selected than for solids and mixtures, in order that the best effects will be obtained. The style of finish applied also influences to a large extent the tone of the fancies to be used and should always be remembered by the designer when introducing design styles at the loom.

Use of Fancy Yarns

More elaborate weave styles have been introduced into cheviot fabrics. The weave style may be considered to be the main feature of the cloth but this is greatly improved by the use of fancy nop yarns and two-ply yarns of very slack twist. The slack twisted yarns have been largely introduced to obtain the marled and speckled effect common to a large number of the knitted fabrics. The use of the two-ply yarns admits of a much greater variety of colorings by combining light with medium and dark shades in twisting. Three-ply twists have also been introduced to obtain a greater range of effects but

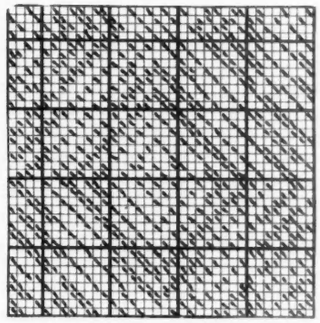


Fig. 4.

the singles have to be spun to finer counts, and this means an increased price for the cloth.

A very popular cloth made from slack twisted marl yarns is constructed as follows: Warp and filling: 3 run twisted with 3 run brown and white; 16 ends per inch and 14 picks per inch; 66 in. wide in reed; 14/15 ozs. per yard, 58 in. wide; weave, plain cloth.

The above cloth is in striking contrast to the "Sportex" already described, and the effect obtained by the slack twist and loose setting is distinctly marked. The turns per inch in the two-ply are from 3 to 4 per inch.

Designs for Bolder Weaves

The designs illustrated by Figs. 4 and 5 are typical of what are at present employed in obtaining the bolder weave styles in cloths for sport wear. Generally the weave effect is obtained by combining warp and filling flush weaves. These are combined in various orders to produce stripe, check and figure designs. The designs used in the construction of Figs. 4 and 5 are the warp and filling 2/1 and 1/2 twills. The design style is best developed by using light shades for warp and dark shades for filling. The particulars of the cloth to which these designs are applied are as follows: Warp, 4½ run twisted with 4½ run, brown and white, 24 ends per inch, 66 in. wide in reed. Filling, 2¼ run dark brown fancy spot yarn, 24 picks

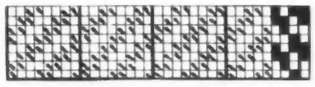


Fig. 3.

per inch. The cloth weighs 14/15 ozs. per yard 58 in. wide.

Both designs are reduced to 19 harnesses by drafting. If greater contrast is required between warp and filling sections the 3/1 and 1/3 twill may be used. These designs have been used extensively for the production of figured designs with 2/2 twill as ground. The cloth produced, however, is not as firm as the one made from the 3-end twill weaves.

The cloths described in this article give some idea of the variety of cloths obtained from cheviot and similar

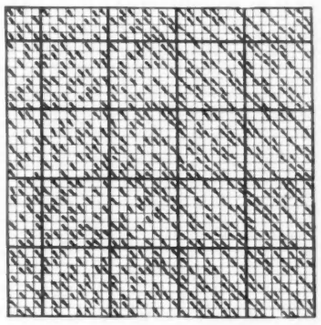


Fig. 5.

qualities of wool. Standard cloths are made by different firms but the above group are representative of the most common type. Price is an important factor and certain firms by making a specialty of one or two cloths are usually able to undersell their competitors. The cheviot fabric is at present very popular and firms that have these as their principal cloths have most of their looms running full time. A very high production is obtained from the looms on this class of work.

Dyeing by "Colloidal Solubilization"

The S.R.A. Dyestuffs for the Dyeing of Celanese—Effects on Mixed Goods

By *G. Holland Ellis*

(Concluded from Nov. 29 issue)

WHAT remained after the establishment as a satisfactory working basis of this novel principle in dyeing in order to achieve the successful and practical coloration of Celanese in commerce were, firstly, the selection of one uniform and general solubilizing agent or "dispersator," and, secondly, the creation of an adequate range of coloring matters of satisfactory dyeing and fastness properties, commercially possible, applicable with this general medium and capable of mutual admixture.

The medium for general use was soon selected. The creation of the requisite series of dyestuffs demanded, however, long and patient constructive researches. The special synthetic preparation of feasible substances likely to be applicable by the methods was extended to some thousands, the work again being directed into the channels of known chemical classes of coloring matters, and also into new ones. A tremendous amount of elimination, often carried out reluctantly with disappointment, was involved as may be expected, largely on account of the high fastness standards imposed by the company. But very soon the nucleus of a useful range of dyestuffs was achieved and it is to be noted that the afore-mentioned generalizations drawn from the behavior of existing dyestuffs were well borne out in observations in these new insoluble compounds applied by the "S.R.A." methods.

Moreover, the work led to the foundation of more detailed laws governing affinity and fastness, and it certainly is to be stated that in the latter respect dyestuffs upon acetyl-cellulose conform far more closely to simple rules governing the relationships of their chemical structure to their resistances to washing, acids, alkalis and light than is the case with any other known fibre.

Expansion of Range

Further expansion of the initially adopted range was ultimately achieved to cover pure yellows, golden yellows, oranges, scarlets, crimson, violet-red, violet and blues, and two or three diazotizing colors (named Diazo Solamines) for the very deepest shades, thus yielding to the practical

INDANTHRENE
THIO-INDIGO
HELINDON
HYDRON

and other vat dyes stock and importation direct from the manufacturers.

A complete line of

Acid, Basic, Chrome, Sulphur and Direct Colors, Intermediates, Cotton Finishes, Turkey Red Oils, Soluble and Leather Oils

Manufactured by

Consolidated Color & Chemical Co.
Central Dyestuff & Chemical Co.
Williamsburg Chemical Co.
and other American manufacturers

H.A.METZ & CO. *Inc.*

122 Hudson Street, New York City

HA
M E
T Z
CO

Reg. U. S. Pat. Off.

TEXTILE JACQUES WOLF & Co. SPECIALTIES

MONOPOLE OIL

REG. U.S. PATENT OFFICE

Chemical Specialties for dyeing, bleaching and finishing of silk, cotton, wool and mixed fabrics.

SULPHONATED CASTOR OILS

TEXTILE GUMS *for printing*

HYDROSULPHITES *for all purposes*

MORDANTS and CHROME COLORS *for fabric printing*

CREAM SOFTENERS

STEAM BLACKS

BENSAPOL *An efficient scouring agent*

ADHESIVES *for every purpose*

JACQUES WOLF & Co.

MANUFACTURING CHEMISTS AND IMPORTERS

PASSAIC, N. J.

Western Representatives:
Aniline Color & Chemical Co., 162 W. Kinzie St., Chicago, Ill.
590 Howard St., San Francisco, Calif.

Forty Four Fulling

The Most Highly Concentrated and Efficient Fulling Soap Ever Produced

Only 80% as much is needed to make up a fulling solution of the required consistency and lubricating value as of any other Soap made. It combines the quick fulling property of a heavy bodied Soap with a remarkable ease of discharge in washing; goods scour cleaner in less time at less cost of steam and water, allowing brighter colors and better handle; prevents flocks and increases capacity through saving in time.

THE HOLBROOK MFG. CO.

Jersey City, N. J.

dyer a general method for obtaining his full range of shades.

Satisfactory results with regard to fastness were assured by very careful and thorough tests upon dyeings both of individual dyestuffs and of typical mixtures for resistance to the following agencies — light, acids, alkalis, soaping (followed by rinsing), soaping (without rinsing), ironing, volatility, perspiration, rubbing, phototropy, cotton cross-dyeing, wool cross-dyeing with formic and sulphuric acids, general domestic usage, weathering, etc.

Recently the "S.R.A." range of dyestuffs has been improved by the introduction of new and superior blue, violet and yellow dyestuffs. The writer is not able to disclose constitutions, but the tinctorial chemist will readily recognize that the present range of "S.R.A." colors is drawn from several classes. The azo class naturally offers a prolific yield of potential "S.R.A." dyestuffs, and a few have been found useful.

Defect of "Phototropy"

An immense number of otherwise excellent yellows and oranges of this class has had to be eliminated, however, on the ground of the defect of "phototropy." This is rather a newly recognized defect in dyed fibres, though many compounds display the property in substance. Its discovery in respect of dyed acetyl-cellulose illustrates how warily the scientist must tread in unknown fields. But it is to be remarked that it is by no means confined to one range of acetyl-cellulose dyestuffs, namely the "Celanese S.R.A." dyestuffs, other ranges proposed having exhibited it in their yellow and orange members.

Unfortunately, although a very absorbing subject which promises to throw considerable light on the theory of the dyeing of acetyl-cellulose, space does not allow it to be dilated upon here from a scientific point of view. It is sufficient to record it as a defect likely to cause confusion and surprise in the dyers' examination room and manufacturers' or customers' hands, and one which led to the rejection of a very large number of otherwise promising dyestuffs. Its detection and the subsequent study which led to a knowledge of its causation and the means of its avoidance in dyestuff synthesis were the direct results of the system whereby all proposed coloring matters for Celanese after passing the laboratory stage are subjected to close scrutiny, first in the experimental dyehouse, then finally in the company's commercial dyehouse before being incorporated in the selected range and issued for general use.

From the point of view of excellent all around fastness properties the anthraquinone series comes naturally to mind, and this group is not being neglected in the constructive work on the "S.R.A" colors. But the importance of the anthraquinone series must not be overrated as far as acetyl-cellulose is concerned. For violet and blue dyestuffs, molecular simplicity being a governing necessity, it is preeminently useful, but it has been found possible with yellow, orange and red "S.R.A." dyestuffs of simple series to achieve dyeings at least equal in resistance to most other agencies and somewhat faster to light than those yielded by "S.R.A." dyestuffs of similar shade derived from anthraquinone—and to achieve them at perhaps a quarter the price.

Dyeing Costs

Thus the whole question resolved itself into one of selection on the basis of commercial practicability consonant with adequate fastness. The matter of dyeing costs was always regarded as an essential factor; for it was recognized that the new range of dyestuffs would have to compete in price on the basis of tinctorial yield with those in use for other fibres to produce dyeings of similar fastness.

In bulk practice both in the British Celanese Company's large dyehouse and in outside dyehouses, the hopes entertained of the method of dyeing by these methods based upon theoretical and practical consideration have been justified, and the method can be considered as established. The commercially adopted series of "S.R.A." colors as at present constituted are issued in the form of 10 per cent. pastes which incorporate both coloring matter and medium or dispersing agent compounded by special means, being therefore immediately ready for use in the dyehouse without more trouble in dissolving than usual.

The "S.R.A." colors are applied simply in the manner usual in direct dyeing methods. Soapy dyebaths are recommended as assisting penetration and leveling, while of course helping to preserve the liquor in good condition. Manuals of practical dyeing notes on the "S.R.A." colors are issued.

Dyeing Other Fibres

It is hardly necessary to state that the coloring matters found most suitable for acetyl-cellulose should have least dyeing powers in respect of other fibres. Thus the whole of the present "S.R.A." range leave cotton and other artificial silks (of cellulosic nature) undyed. Of animal fibres, silk (except in the case of S.R.A. Pure Yellow I, which dyes animal fibres) resists well, though there is, as may be expected, considerable variation between different silks, while wool acquires some staining.

Soaping in all cases improves the results, removing the small amounts of mechanically adhering color. It has been found possible in practice to apply the "S.R.A." colors in the same bath with the "salt" or "direct cotton" dyestuffs, although the chemical incompatibility of the two groups would seem to militate against this. The practicability is due to the powerful protective action of the "S.R.A." mediums. To assist the cotton dyestuffs in the usual manner, salt in reasonable quantities may be added, though it is without any great beneficial effect in the yield of the "S.R.A." colors themselves.

Effects on Mixed Goods

It will thus be seen that by employing suitable cotton dyestuffs it is possible by single bath dyeing to obtain on mixed goods of Celanese and cotton or cellulosic-artificial silk either totally contrasting shades, blending shades, or uniform effects at will. The great importance of this will be recognized by the textile designer, manufacturer, dyer, merchant and practical chemist.

Several of the possibilities have as a matter of fact been well exploited both in woven goods of figured and "shot" effects, and in mixed yarns of Celanese and cotton, etc., for hosiery and general knitting purposes. These latter yarns have attained some popularity and publicity under the name of "Celfect."

If it is not desirable or practicable for certain reasons to dye mixed fibres in one bath, it should be noted that two-bath methods may satisfactorily be employed since the "S.R.A." colors are of good fastness to cross dyeing with direct cotton colors. Solid or different shades may also be obtained on mixtures of Celanese with wool or silk, since there is available a large number of neutral dyeing colors for these animal fibres which will dye in the same dye-baths with the "S.R.A." colors.

The two-bath method may again be used if desired, as the "S.R.A." colors may be dyed on the Celanese fibre and the wool or silk afterwards covered with the selected class of color. In this connection it should be stated that although some of the "S.R.A." colors are fast to mineral acids, it is in general preferable to employ formic acid which all of them withstand sufficiently well.

Oct. Wool Consumption

WASHINGTON, D. C.—The Department of Commerce announces the following statistics with regard to the consumption of wool, by manufacturers in the United States during the month of October, based on reports received from 573 manufacturers. This is exclusive of 26 which failed to report the consumption of wool for the month. The total quantity of wool entering into manufacture during October, 1924, as reported, was 47,927,379 lbs., as compared with 39,545,719 lbs. in September, 1924, and 44,650,009 lbs. for October, 1923. The consumption shown for October, 1924, included 30,763,209 lbs. of wool in the grease; 6,308,001 lbs. of scoured wool; and 1,856,169 lbs. of pulled wool. Reduced to a grease equivalent these quantities would amount to 54,854,103 lbs. The grease equivalent for September, 1924, was 45,637,549 lbs. and for October, 1923, 51,814,976 lbs.

The monthly consumption of wool (pounds) in grease equivalent for concerns reporting for 1924 was as follows: January, 53,845,024; February, 50,632,884; March, 47,630,291; April, 44,361,464; May, 36,507,484; June, 30,972,041; July, 33,777,635; August, 40,063,717; and for September, 45,637,549. October, therefore, shows the largest figure for the year so far. Of the wool used during October, 1924, 26,862,140 lbs., or 56%, was domestic wool; and 21,065,239 lbs., or 44%, was foreign wool.

The following table gives the wool consumed in October, classified according to grade, with totals of January to October for comparison:

(All quantities in pounds)

Class and grade	Total for Oct. 1924	Total Jan. to Oct. incl. 1924	1923
Total	47,927,379	373,972,413	468,658,362
Domestic	26,862,140	183,442,709	162,660,272
Foreign	21,065,239	190,529,704	305,998,090
Combing[1]	27,840,090	200,877,592	257,926,208
Clothing[1]	7,668,986	72,370,622	85,097,345
Fine, total	12,543,591	87,101,695	92,345,662
½-blood	5,132,267	46,338,609	53,666,691
⅝-blood	6,874,233	56,100,533	76,848,182
¼-blood	7,266,079	64,043,840	100,599,222
Low ¼-blood[2]	2,059,645	12,488,700	6,261,371
Common, total[3]	92,295	1,574,598	674,834
Braid, total[3]	50,581	657,237	319,212
Lincoln, total[4]	430,186	4,943,002	12,308,608
Carpet, total[4]	12,418,303	100,724,199	125,634,879
Total, reduced to grease equiv[5]	54,854,103	438,282,192	545,876,761
Domestic	31,831,596	226,007,464	209,460,170
Foreign	23,022,507	212,274,728	336,416,591

1. Exclusive of carpet wools. 2. Figures for dates previous to September, 1923, include "Common" and "Braid." 3. All domestic. 4. All foreign. 5. In computing the grease equivalent, 1 pound of scoured wool is considered equivalent to 2 pounds in the grease; and 1 pound of pulled, to 1½ pounds in the grease.

Wool Pulling Census

Government Figures Show Big Growth Between 1921 and 1923

WASHINGTON, D. C.—The Department of Commerce announces that, according to the data collected at the biennial census of manufactures, 1923, the establishments engaged primarily in wool pulling (detaching wool from sheepskins) reported products valued at $15,176,021, an increase of 124.3% as compared with 1921, the last preceding census year. In addition, considerable wool pulling is done in tanning and in slaughtering and meat-packing establishments; but this work is not represented in the statistics for the wool-pulling industry, which embraces only those establishments engaged wholly or mainly in wool pulling.

Of the 27 establishments reporting for 1923, 6 were located in Illinois, 3 each in California, New Jersey, and Pennsylvania, and the remaining 12 in Indiana, Maine, Nebraska, New York, Ohio, Oregon, Utah, Virginia, and Washington. The statistics for 1923 and 1921 are summarized in the following statement. The figures for 1923 are preliminary and subject to such correction as may be found necessary upon further examination of the returns:

	1923	1921	% of In- crease*
No. of establishments	27	22	.....
Persons engaged	803	618	29.9
Proprietors & firm members	19	22	.....
Salaried employees	88	74	.....
Wage earners (average number)	696	502	38.6
Maximum month	Feb. 826	Apr. 629	.....
Minimum month	Oct. 594	Jan. 377	.....
Per cent of maximum	69.5	59.7	.....
Salaries and wages	$1,165,205	$855,167	36.3
Salaries	$298,737	$161,692	84.8
Wages	$866,468	$693,475	24.9
Cost of materials (including fuel and containers)	$11,308,221	$5,197,595	117.6
Products, total val.	$15,176,021	$6,767,161	124.3
Value added by manufacture†	$3,867,800	$1,570,066	146.3
Horsepower	2,827	(‡)	.....
Coal consumed (tons of 2,000 lbs.)	16,060	(‡)	.....

* Per cent not computed where base is less than 100.
† Value of products less cost of materials.
‡ Not reported.

QUESTIONS AND ANSWERS

CORRESPONDENCE WITH READERS

Under this head, we undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD. Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. In this way answers can be given which will be of immediate technical value to the correspondent and to others in the same line. Inquiries pertaining to textile processes, machinery improvements, methods of management, the markets, etc., are especially invited as well as any legitimate discussion on the views expressed. All inquiries must be accompanied by the name of the person inquiring, not for publication, but as an evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

If the question is not of general interest to textile readers and involves expensive investigation, a charge covering the cost may be made, of which the inquirer will be advised before any expense is incurred.

Letters expressing opinions or voicing criticism will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.—EDITOR.

Drawing for 2/40s Worsted

Technical Editor:

Will you kindly give me the following information. We are equipped with drawing for long wool; all front rollers are 5 in. in diameter. We buy botany tops and we are to make some 2/40s botany out of 66s top. The boxes we can use are:

3 two spindle gill boxes
1 four spindle drawing box
1 six spindle weigh box
2 six spindle finishers
2 forty spindle rovers
3 thirty spindle dandy rovers

What would be the best way to get the best results in the finished yarn with a set of drawing of this kind? We have made samples before but we never have been successful in obtaining as good results as we would like. (5256)

The best thing to do is to get equipment that will handle the 66s stock properly. Your stock being short you have no chance to close up enough on your ratches, especially your bottom carrier. You are too far away from the nip, which will cause very uneven drawing and naturally poor yarn. The machinery you have could be got in shape to handle such stock by putting in 4-in. front rolls and other corresponding parts to enable you to handle such stock.

The writer would suggest the following layout for single set of drawing:

1 double-head can gill box
1 two spindle gill box, bobbins 14 by 9 in.
1 four spindle drawing box, bobbins 14 by 9 in.
1 six spindle weigh box, bobbins 14 by 7 in.
1 ten spindle drawing box, bobbins 12 by 6 in.
2 eighteen spindle dandy finishers, bobbins 9 by 5 in.
3 twenty-four spindle reducers, bobbins 8 by 4 in.
6 thirty-six spindle dandy rovers, bobbins 6 by 3½ in.

This is a very nice layout although the machinery builders might be able to offer you some other that would possibly cut out the 18 spindle dandy finishers. On the other hand, you might be able to pick up satisfactory second-hand machinery, although you would have to take something a little different in the size of bobbins. The machinery mentioned in the inquiry is far from that needed to spin 2/40s out of 66s top.

* * *

Artificial Silk in Narrow Fabric Mill

Technical Editor:

We are manufacturers of elastic and non-elastic narrow fabrics using cotton yarn for warps. We are contemplating using artificial silk warps and would appreciate any information that you can give us as to how the silk is handled during warping and weaving of narrow fabrics such as ribbons, where 100 ends or more are used. Our webbing is heavy, there being 1,000 ends in 1½ in. of web. Part of the warps are of cotton, which in weaving passes the silk, and there being so many ends to the inch it tends to cling to the silk in passing. We will use two silk warps with about 200 to 325 ends each of 150 denier silk. (5240)

A ribbon having artificial silk warps, or a non-elastic fabric of single cloth construction having a combination of silk and cotton warps, may be handled very differently from a heavy elastic fabric where a double cloth weave is generally employed. In the first case it should be practicable to weight the cotton warps quite heavily so that there is little liability of the cotton warp fibres interfering with the artificial silk in the weaving shed. A good clearance can generally be easily obtained. If the double cloth weave is used, where the binder warp locks the face and back cloth together, the warps, particularly the binder, can be only lightly weighted, and then the shed clearance is liable not to be so good. This is aggravated by the added crowding, resulting from the heavy strands of rubber working in the reed spaces.

It is essential of course that nothing but best quality artificial silk be used for warp purposes. The loose fibres generally to be found in the lower qualities disqualify them for use in the warp, where harness and reed friction have to be contended with. (A lower quality may be satisfactory for the shuttle.) Once any of the fibres in the warp become broken, they are liable to be separated from the main thread for some little distance, for, unlike cotton, there is practically no twist used to keep them in mass form. Nor will sizing help this to any great extent. Every precaution should be taken so as to avoid undue straining and friction, which might cause the breaking of any of the minute fibres.

The dyehouse is the most prolific source of trouble. Careless handling, violent boiling, poor making up, or some other such cause results in the breakage of many of the small fibres, and unfits the material for warp purposes. Damage may also take place to some extent in the spooling process, where rough handling of the skeins when shaking out is liable to cause fibre breakage. Care must be taken to avoid the slightest irregularity in warping, and the multiple of threads constituting each section must be perfectly taped on the beam with no ridges whatever, otherwise irregular strains when leaving the beam will be liable to break some of the fibres. Before going on the beam the threads should pass over and under a series of rods to correct any irregularity, and then pass over a narrow flanged steel roller set at such an angle that all the threads will be kept side by side as they pass on the beams. This aids uniformity.

In weaving, the silk warps should be kept entirely separate from the cotton warps at the back rolls behind the harness. It is necessary that these rolls revolve with the greatest ease. Most important of all is the method employed in the manipulation of the individual warps in the harness. Here there is most liability of crowding and friction, and every effort should be made to reduce this to a minimum. The finest and best heddles obtainable should be used, consistent with the requisite strength. The silk warps are best drawn in as near the front harness as possible, so as to avoid all unnecessary travel in the formation of the shed. All the available harnesses should be employed so as to give the heddles plenty of room for spreading, and reduce friction from side crowding. Use a combed and gassed yarn for cotton warps, if practicable, and shed these well in the harness, clearing the silk all possible. By carefully watching all these details, many of the difficulties will be overcome.

* * *

Finish on Mercerized Broadcloth

Technical Editor:

I enclose herewith two small samples of mercerized broadcloth, one white and one pink. I would greatly appreciate it if you would kindly tell me how to finish these to get the same high degree of lustre and silky feel. You will notice the threads in the samples stand out well and are not flattened in any way. (5257)

There are some fabrics which very few men know how to handle, and this is one of them. The fine goods bleachers that are making a success of such work are paying high-priced finishers for expert services. As a matter of fact, we understand that the finishing alone is not the entire difficulty that some plants are having in producing this broadcloth. The following method of finishing should give something approaching the desired silky feel and luster exhibited by the samples if the fabric is right to start with:

Singe thoroughly, pad through caustic soda solution of 5 deg. Tw. and run into kier. Give two 8 and 10 hours boils with caustic soda, washing well between boils. Wash goods thoroughly, dry and mercerize through strong caustic of a concentration of 52 deg. Tw. or slightly higher, keeping temperature below 70 deg. F. and stretching on tenter frame to as near gray width as is possible without damaging the cloth. After mercerizing, wash, sour and bleach with chemic in the usual manner. When bleaching is completed and the goods have been soured and washed, dry on cans. Colored shades may now be dyed on either pads or jigs and dried on cans. In finishing the fabric saturate with a solution of turkey red or other sulphonated oil, mangle, dry on cans, and stretch to desired width on a 60-foot tenter. To enhance the feel and luster, goods of this class are almost invariably given at least a slight calendering; for this purpose a five bowl calender is suitable. This concludes the processes and the cloth may be folded, put up and packed.

Editor, TEXTILE WORLD:—

Thank you very much for your valuable letter of the 1st. We certainly appreciate the information which you gave to us.

We compliment you upon the service which you are giving to your subscribers.

Yours very truly,
BALLSTON KNIT GLOVE CO., INC.
H. I. Prankard

* * *

Removing Skin from Wool

Technical Editor:

Under separate cover I am sending you a small sample of wool. You will note same is a pulled wool and that some skin is adhering to the wool. When the wool is scoured and dried this skin is still there, and I would like to know of a method by which same can be removed, if possible, without deteriorating the wool fibre. We were advised to try long soaking in water but this did not have the desired effect. Your advice therefore will be appreciated. (5255)

There is probably no practical way of removing these small pieces of skin except by sorting them out of the wool or picking them out of the cloth by hand. The latter method would be hard on the card wire and it would be better to sort out the pieces of skin if the wool must be used. There is no chemical method of removing skin from wool which will leave the wool in good condition. Boiling out the material with about a 5% solution of sulphuric acid will dissolve the skin and leave the wool, but the fibres will be in a damaged condition for spinning and more or less discolored. The best plan would be not to attempt to use the wool. We have been over this matter before with other textile mills and have talked the problem over with various authorities, and the above is the conclusion we have always been forced to reach.

* * *

Chemicking Cotton Piece Goods

Technical Editor:

Can you give me information on the chemicking of cotton piece goods? I would like to know the usual strength for organdie, voile and also heavier goods. What is the best method to determine whether the goods have been sufficiently chemicked? What effect will acid or caustic soda left in the goods have upon the bleach? It is the intention of the plant where I am employed to add a wash box and chemic pit to the tenter mercerizing frames, which already have two wash boxes and a sour box. Where can I get a practical book on bleaching and mercerizing? (5260)

The heaviest or strongest chemic liquor which the writer ever had any occasion to use on cotton goods was about ¾ deg. Tw. As a matter of fact, it is preferred to use an average of ½ deg. Tw. provided there is ample time in the chemic bins to give a sufficient

Correspondence with Readers—Continued

length of treatment with this liquor to get a slow but prolonged action. A chemic liquor of this strength can be used for periods of 45 minutes to two hours without materially affecting the strength of light goods. On heavy goods, of course, such as sheetings, shirtings, nainsooks, etc., it is probably better to use ¼ deg. chemic for a little speedier action. The strength of chemic and the length of treatment depend, of course, a great deal on the quality of the kier boil. It is a well recognized fact that goods boiled twice in the kiers do not require such strong treatment with chemic. The only method of determining the sufficiency of chemic treatment is by the general appearance of the goods.

The practical bleacher, of course, becomes used to a certain strength of chemic and knows by actual practice the length of time that is required for a certain weight of goods to become bleached to a set white. The great difficulty with attempting to set down any rules and regulations is that different men have their own ideas of treatment. For instance, we have known of the older type bleachers using a light bleach process who used to chemic at ¼ deg. Tw. on sheetings and pillow tubings, and they would allow their goods to stand in the chemic bins over night.

Regarding the question of the effect upon the bleach of acid or caustic left in the goods, the effect of acid is that, of course, which is commonly known as "a bowk sour is formed," which is a very energetic and quick action. This is somewhat detrimental to the strength of goods and very disagreeable in the bleach house due to the fact that it causes the bleaching liquor to throw off its chlorine, making a very disagreeable odor which is injurious to the membranes of the human nose and throat.

Caustic soda left in the goods in slight traces is not in any way really injurious, but it retards the action of the chemic, and in fact makes a very mild bleach. It is much better, however, to have the goods washed thoroughly clean both from acid and caustic soda.

The writer notes the remark of the inquirer to the effect that his present employers intend adding a wash box and chemic pit to their mercerizing outfit, which is already equipped with two wash boxes and a sour box. We do not personally think much of this idea, as it is impossible to wash goods thoroughly clean in an outfit similar to a 3-compartment washing and souring outfit. If goods are to be dyed after mercerizing and bleaching, we are afraid that trouble will be experienced from resists, etc. As a matter of fact, within the last few years well posted mercerizers and bleachers are eliminating the souring treatment after mercerizing and are installing larger washers. For instance, up-to-date mercerizing ranges rarely are built with less than four or five washing compartments in which hot washes and spurt pipes are used to remove all traces of caustic, with the idea of deriving all the possible benefit from the standpoint of recovery of caustic soda.

The best book which the writer knows of for a bleachery man is "The Chemistry and Practice of Finishing," by Bean & McCleary, which can be secured from the Book Department of TEXTILE WORLD.

Streaks in Dyed Hosiery

Technical Editor:

I am sending sample of hose which shows the top, heel and toe to be streaked in dyeing. I would appreciate it very much if you would advise me whether this is caused by the yarn or is it the fault of the dyer?

(5258)

A careful examination of the sock reveals that the cotton is unevenly dyed or colored, while the unevenness appears in horizontal bands. This indicates that the trouble is due to the yarn. The inquirer should try another yarn and see if the difficulty is removed. Where such unevenness exists, there is no method that will correct it except to strip and redye. There is nothing about the one sock submitted that indicates any fault of the dyer. Except for the irregularity in the bands above noted, the dyeing is very good.

* * *

Progress in Artificial Silk Industry and Prospects

Editor, TEXTILE WORLD:

Seeking a broader knowledge of the present standing and outlook of the artificial silk industry in this country I am writing to ask information on the following four points:

1. What steps are being taken to improve or cheapen the methods of production of artificial silk?

2. What success has been achieved in the dyeing, printing and finishing of artificila silk fabrics?

3. What are the available figures relating to cost of production, such as labor cost, cost of raw materials, etc.

4. Are any steps being taken either by individual firms or by any organized group to extend the sales of artificial silk? Do manufacturers expect to find their largest market at home or abroad?

Yours very truly,

A. B. C.

1. We should say that the most important development toward improvement of artificial silk producing methods is the work that has been done in producing a finer, softer product and one which has less artificial luster. This development has been along the lines of increasing the number of filaments per strand, or in other words, reducing the size of the filament. For some time, Viscose artifical silk, for example, was manufactured by forcing the solution through a spinnerette containing 18 holes. The number of holes has been increased and their diameter decreased so that more and finer filaments are included in each strand. This extends the potential market on artificial silk since it produces a material which is particularly suited for knitted underwear and other products in which a softer feel is essential. As far as cheapening the method of production goes, this has been realized largely by the increase in plant capacity. Naturally the Viscose Co., for example, which is turning out nearly 30,000,000 lbs. is operating much more economically than when its production was only 10,000,000 lbs.

2. Probably the outstanding development in artificial silk dyeing recently has been the work done in connection with one particular type of silk, Celanese. The firm manufacturing this product in England developed with the aid of a dyestuff company a series of special dyes for cross dyeing fabrics containing Celanese and other fibres. This is being carried on by the company which is starting the production of Celanese in this country.

In general the progress made in processing artificial silk alone and in combinations during the last year or two has been noteworthy. It has been largely an individual proposition where mills worked out their own methods and was of course a natural aftermath of the tremendous increase in the use of the material. A few years ago dyers, printers and finishers were often at a loss as to how to handle artificial silk and many complaints were made against the material itself which should have been laid to improper processing. Today the various dye firms and other agencies have concentrated on methods for handling artificial silk so that practically any mill can secure assistance. At the same time the artificial silk firms have all established technical staffs for the assistance of their mill customers.

3. We have absolutely no figures showing cost of production. The industry is still in the secretive stage and although one hears all sorts of rumors about how much each company's product costs, we are frank to say we have nothing definite on this at all.

In connection with developments in production, there is the extension of the use of cotton linters as a base. One of the chief advantages of this is the assurance of a regular supply since the wood pulp situation has been marked by the possibility of scarcity. Since each company treats its own linters it has control of its own raw material supply, which it did not have under the purchase of wood pulp.

4. It is noteworthy that practically all the artificial silk firms have gone into advertising on a more or less pretentious scale. They are advertising to their direct customers and also are working out methods for featuring artificial silk to the individual consumer. Elaborate books on the product have been prepared by certain of the companies.

At the time that the new name was developed for the product, it was the idea that a general publicity campaign would be inaugurated, with the cooperation of the retailers. This plan has not been developed to any considerable extent but more may be expected from this in the future.

At the present time, the major market for the domestic product is at home and the demand here has been sufficient to take care of a large part of the supply. It is likely however that export markets will be more intensely developed as the domestic product continues to increase.

* * *

Finishing Khaki Duck

Technical Editor:

I note in your Nov. 22 issue directions for finishing khaki duck, and you very properly state that after tentering and before calendering goods should be conditioned. You later state that the goods should be allowed to lie before calendering for four to six hours. This, of course, refers to the old-fashioned way of sprinkling where liquid water is applied to one surface, and of course it is necessary with such procedure to allow the goods to lie until the moisture gets a chance to permeate the fabric. But when goods are conditioned, the process is one of absorption, and is necessarily evenly distributed through the entire material, and consequently no waiting is necessary between the conditioning and calendering. We have many installations running at speeds as high as 90 yards per minute, where goods are taken directly from dryers, through the conditioning machine, and right into the calenders. This of course saves considerable time in waiting for absorption, which means a considerable saving of floor space to store the goods while they are waiting for the absorption to take place. I thought you would be glad to get this angle of the situation.

Ivar L. Sjostrom, president,
Manufacturers Machine Co.,
No. Andover, Mass.

* * *

Preparing Educational Program for Employes

Editor, TEXTILE WORLD:

We are working for an educational program for our employes and would greatly appreciate your cooperation to the extent of submitting any data that you can furnish on raw materials used in the textile industry; short sketches or authority on these subjects will be gratefully accepted.

If you also know of any good authorities that we can purchase, we would appreciate the names. We would also like to have you advise us whether or not the textile schools have correspondence courses.

We are particularly interested in wool, worsted, mohair, alpaca, artificial silk and pure silk. We want to work along this line as economically as possible in getting the best results.

Yours very truly,

E. F. G.

There is a vast amount of material published in TEXTILE WORLD on the subject of fibres and raw materials. This naturally suggests that it might be a good plan for you to go through issues of TEXTILE WORLD for a year or two back and clip such articles as would bear on the subjects you have under consideration. These clippings can be pasted into a scrap book which would make excellent text material for use in classes.

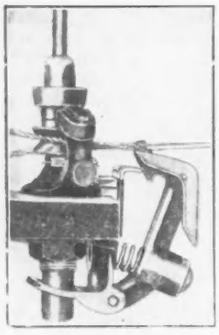
Then we would suggest that some one in your organization go through TEXTILE WORLD regularly, as well as the other textile periodicals, and select such articles as are suitable to be used in the same way.

There are a number of good books which are sufficiently elementary for this work. We would particularly recommend the following: "Wool" by Hunter; "Worsted" by Dunville and Kershaw; "Silk" by Hooper; "Silk Merchandise Manual" by Thompson. This latter work would be excellent for your purpose as it covers all the elementary information you would probably require regarding raw silk, artificial silk and the subsequent processes of manufacture. The book on wool covers mohair and alpaca.

The above books are all of an elementary nature, written for those who are not advanced in the subjects. Of course there are other books which are more advanced. For example the standard authority on fibres is Matthews' "Textile Fibres," of which there is a new edition just published. The strictly textile schools do not have correspondence courses.

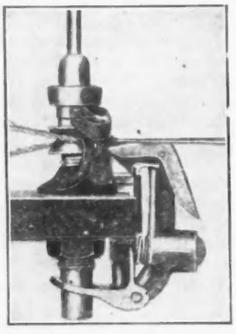
---

*OXFORD, MASS. James Whittaker & Sons, Inc., who recently purchased the plant of the former Dolge Felt Co., Inc., where it will consolidate the Park Mills of Hyde Park, Mass., and the Northboro (Mass.) Garnetting Co., now expect to begin operations about Jan. 1. The mill is undergoing extensive repairs.



At left, "C-C" Banding Device. This view shows band ready to be tightened with device open.

At right — showing device closed, with band ready to be doffed on to the spindle whirl.



Uniform Tension

Uniform tension on spindles means uniform work! But it is impossible to get uniform tension when the spindles are banded by hand.

With the "C-C" Banding Device any one can apply bands at absolutely uniform tension—the ideal tension having been previously determined. The pull on the spindles will always be the same. This results in a 15% saving in power, banding and spindle wear, to say nothing of soft yarn, 75% of which is made just before the band breaks or lets go.

As small a variation in spindle speed as will be found in any tape-driven frame.

Let us prove our claims by an actual demonstration in your plant without one cent of cost on your part. Write for details and our latest prospectus.

Cook, Taylor & Co., Box 186, Fall River, Mass.

"C-C" BANDING DEVICE

FELT

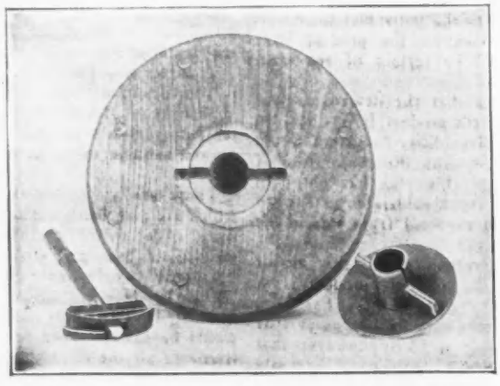
The Choice of Expert Judges

NATURALLY we are proud that such a great majority of textile manufacturers have chosen American Felt Company's felt for covering rolls and other uses.

Such a marked preference does not come by chance. Merit alone accounts for American Felt Company's leadership.

AMERICAN FELT COMPANY

211 Congress St., Boston 114 E. 13th St., New York City
325 So. Market Street, Chicago



A Practical Jack Spool

The Head Cannot Turn or Fly Off

Notice the construction of the washer. The feather fits tightly into a slot in the head and barrel preventing the head from turning or coming loose.

There are no threads on tennon to strip; if the head breaks leaves good end for new heads. The head is three ply hardwood — guarantees strength and freedom from warping, splitting and breakage.

Long tapered stud fitted to tapered hole prevents gudgeon from wearing hole and becoming loose.

Extra long oblong nut cannot be drawn into wood or become loose.

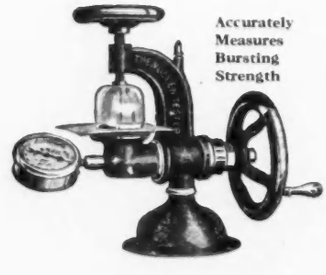
Spring lock keeps gudgeon tight.

Write today for trial proposition.

VERMONT SPOOL & BOBBIN CO.
Burlington, Vermont

PERKINS HOLYOKE

Hand or Motor Driven—



Accurately Measures Bursting Strength

JUMBO MULLEN TESTER

Write Dept. T12, B. F. Perkins & Son, Inc., Holyoke, Mass.

COTTON GOODS MARKETS

Expect Quiet Month With January Active

Seasonal Dullness Through End of Year Likely—Cotton Blankets 8-10% Lower

Recent trading, especially in gray goods, has lived up, or down, to expectations. The market as a whole has been quite, and activity worth talking about is not expected before the first of the year. A normally quiet month, December this year will be principally occupied by plans and preparations for the healthy movement of merchandise which is expected to get into swing before the end of January.

Under the influence of a weak raw material market and lack of interest on the part of large operators in further commitments at this time, gray goods have eased off still further during the last ten days, and the reductions from the highs reached on print cloths during the rush of business which followed the election is now marked. It remains true, if somewhat anomalous, that the undercurrent is distinctly strong, and buying expected to develop in January is considered certain to help prices back up to the recent highs.

The decline in raw cotton to date was generally anticipated in the goods market. Considerable sentiment exists to the effect that the staple this week had gone about as low as it will for the time being, and that an upward movement may be expected early next year.

Finished goods business is best described as irregular. In sections it is stated that buying of staples has dropped off about in proportion with the loss of interest in print cloths, but others claim that a fair and "satisfactory" volume continues to be put through.

Denims continue available on a basis of 19c. for 2.20s; there is no quotable change in tickings or in any other colored goods. Recent improved interest in wash goods has not resulted in any tremendous volume of sales. Percales are still on sale in important sections, at old prices, notwithstanding the withdrawal of these levels by the largest producer.

Trading in Blankets

Quiet trading in blankets for some weeks past has resulted in a good volume of business placed for 1925, according to reports. Official openings of lines will probably not be made for next season until a large percentage of the production is sold up, it is understood. Nearly all of the houses handling cotton blankets and part-wool blankets have participated in recent quiet trading, and the outlook for this merchandise is considered entirely satisfactory.

Market understanding is that prices of all-cotton blankets are approximately 8–10% lower than last year, part-wool goods about on the same level, and all-wool blankets roughly 8–10% higher than a year ago.

Comparative Quotations

	Dec. 3	Nov. 29	Dec. 6, 1923
Spot Cotton, New York	23.40c.	24.25c.	35.00c.
Print Cloths:			
27- in., 64x60, 7.60 yd	6¾c.	6⅞c.	8¼c.
38½-in., 64x60, 5.35 yd	9c.	9⅛c.	11⅜–11½c.
39- in., 68x72, 4.75 yd	10⅛c.	10⅜c.	13¾–13c.
39- in., 72x76, 4.25 yd	11¾c.	12c.	14c.
Brown Sheetings:			
36- in., 56x60, 4 yd	10¾–11c.	10⅞–11c.	13½c.
36- in., 48x48, 3 yd	13½–13¾c.	13¾c.	16–16¼c.
37- in., 48x48, 4 yd	10½c.	10⅝c.	13–13¼c.
Pajama Checks:			
36½-in., 72x80, 4.70 yd	10¾c.	10¾–11c.	14c.
36½-in., 64x60, 5.75 yd	8¾c.	8⅞–9c.	11¼c.
Drills, 37-in., 3 yd	13½c.	13½–13⅝c.	16½–17c.
Denims, 2.20s	19–19½c.	19½c.	*27–27½c.
Tickings, 8 oz	24½c.	24½c.	28½c.
Standard prints	9¼c.	9¼c.	10¼c.
Eastern staple ginghams, 27-in	10½c.	10½c.	*14.4c.

*Nominal.

Cotton Goods Trade Notes

Considerable interest has been aroused by recent offerings of denims and chambrays in 36 in. widths. It is understood that denims in this width have been well received by several of the larger cutters. Economies in cutting as well as in cloth production are understood to result from the wider width and it is considered likely that more general offerings understood to be in the offering will be welcomed.

Converse & Co. announce that the Sure-Fit Mattress Cover Mfg. Co., Philadelphia, will have the exclusive right to manufacture mattress covers made of unbleached Fruit of the Loom muslin and bearing the Fruit of the Loom label.

Harding, Tilton & Co., McCampbell Dept., have been appointed sole selling agent for the Pioneer Mills, Guthrie, Okla., manufacturers of army ducks.

Incorporation papers have been filed at Albany, N. Y., by Moraff, Craig & Co., selling agents, New York. The incorporators are H. Irwin Moraff, A. M. Craig and Leroy H. Daniell, 86 Worth St., New York.

Final Quarter's Dividends

New Bedford's Showing for the Year Called Lean

NEW BEDFORD, MASS.—The year of 1924 was one of the leanest experienced by stockholders in New Bedford cotton manufacturing mills for many years, as the final quarter's disbursements, averaging around $1.33, makes the average for the year about $5.50. Last year the amount distributed averaged almost $7. In the final quarter disbursements amounted to $902,817 on a total capital of $67,678,900, but of this capital amounting to $21,767,000, representing seven issues, failed to make any returns in the fourth quarter. On the capital making a return for the final quarter, the average dividend was about $2. Pierce Mfg. Co., maintained its $8 rate throughout the year. Nashawena again disbursed the largest amount with $120,000 for the quarter, or $480,000 for the year. The rates and amounts paid in the fourth quarter follow:

Mill	Capital	Rate	Amt. Paid
Acushnet	$2,000,000	1.50	$30,000
Beacon, com	1,200,000	*	
Booth, com	1,000,000	2.00	20,000
Booth, pfd	852,800	2.00	17,056
Booth, pfd	344,100	1.50	5,161
Bristol	1,000,000	3.00	30,000
Butler	2,000,000	2.00	46,000
City	750,000	2.00	15,000
Dartmouth, com	4,000,000	2.00	80,000
Dartmouth, pfd	600,000	1.25	7,250
Fairhaven, com	1,600,000	....	.....
Fairhaven, pfd	2,000,000	....	.....
Gosnold, com	1,650,000	....	.....
Gosnold, pfd	1,600,000	†3.00	48,000
Grinnell	1,500,000	1.50	22,500
Hathaway	2,000,000	1.50	30,000
Holmes, com	600,000	1.50	9,000
Holmes, pfd	600,000	2.00	12,000
Kilburn	2,250,000	2.00	45,000
Manomet	8,000,000	....	.....
Nashawena	6,000,000	2.00	120,000
Neild	1,200,000	3.00	36,000
N. B. Cotton, com	1,050,000	*	.....
N. B. Cotton, pfd	750,000	1.50	11,250
Nonquitt	4,800,000	....	.....
Pierce Mfg. Co	600,000	8.00	48,000
Potomska	1,800,000	1.50	27,000
Quissett, com	2,000,000	2.00	40,000
Quissett, pfd	305,000	†3.00	9,150
Sharp, com	2,656,000	....	.....
Sharp, pfd	1,161,000	....	.....
Soule	1,250,000	2.00	25,200
Taber	1,600,000	1.50	24,000
Wamsutta	6,000,000	1.50	90,000
Whitman	3,000,000	2.00	60,000
	$69,928,900		$902,817

*—Dividends not made public.
†—Semi-annual dividends paid second and fourth quarters.

Active Cotton Spindles

WASHINGTON, D. C.—The Department of Commerce announces that according to preliminary figures 37,833,252 cotton spinning spindles were in place in the United States on Oct. 31, 1924, of which 31,078,804 were operated at some time during the month, compared with 30,122,384 for September, 28,945,603 for August, 28,710,359 for July, 29,216,486 for June, 30,493,165 for May and 34,335,930 for October, 1923. The total number of cotton spinning spindles in place, the number active, the number of active spindle hours and the average spindle hours per spindle in place, by states, are shown in the following statement:

State	Spinning spindles (in thousands)		Active spindle hours for October	
	In place Oct. 31	Active during Oct.	Total	Average per spindle in place
U. S.	37,833	31,078	7,592,569,221	201
Cotton growing	17,301	16,463	4,825,357,705	279
New England	18,561	13,041	2,444,861,863	132
All Other	1,969	1,573	322,349,633	164
Ala	1,391	1,319	384,272,061	276
Conn	1,255	1,110	232,603,785	185
Ga	2,817	2,687	790,343,921	281
Me	1,135	1,065	167,507,754	147
Mass	11,781	8,192	1,504,074,019	128
N. H	1,448	571	115,466,063	80
N. J	444	401	64,403,014	145
N. Y	998	806	176,203,072	177
N. C	5,908	5,594	1,660,334,642	281
Penn	195	126	24,733,620	127
R. I	2,795	2,000	403,869,424	144
S. C	5,272	5,096	1,565,933,440	297
Tenn	455	438	117,923,036	259
Tex	212	192	48,857,568	230
Va	707	688	136,483,558	193
All Other	1,013	787	199,560,246	197

CHESTER, S. C. A meeting of the stockholders of the Baldwin Cotton Mills has been called for Wednesday, Dec. 17, for the purpose of considering and passing upon the question of the liquidation, winding up the affairs and dissolution of the Baldwin Cotton Mills, which were recently consolidated with the Aragon Cotton Mills and the Glenn-Lowry Mfg. Co. to form the Aragon-Baldwin Mills.

MANCHESTER NEWS BY CABLE

Manchester, Eng., Dec. 3 (Special Cable to TEXTILE WORLD).—Business is irregular. Some producers complain of absence of practicable demand. Other makers are selling steadily. Numerous foreign customers are not inclined to restock their shelves at current prices.

Increased cloth demand noted for China and extensive transactions arranged in gray and white shirtings. Operations for India patchy with light cloths more active than heavy makes. Sized shirtings sold in fair quantities for Egypt. Fancies in active request for Europe. Steady business in printing descriptions for South America. Mild weather adversely affecting home trade clearances.

Index number for the week is 217.

"IRONCLAD" Textile Tubes

The tube on which cloth is wound is a mere detail in textile manufacture. Yet it is one of the hundred and one details which no wide-awake mill manager neglects.

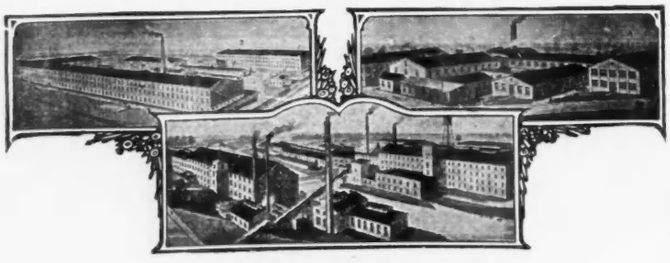
We have developed a new process of manufacture and offer you a tube, which from the standpoint of strength and price is, we believe, superior to any on the market today. We will gladly send you samples. It is worth your while to write for them NOW.

TEXTILE TUBES, WINDING CORES, SHIPPING SPOOLS AND PAPER SPECIALTIES

INDUSTRIAL TUBE COMPANY
Waltham, Mass.

The Kent Manufacturing Co.

(Established 1843)



Union Mills
Rockbourne Mills
Runnymede Mills
Clifton Heights, Pa.

Burmont Mills
Burmont, Pa.

Bedford Mills
Bedford City, Va.

Manufacturers of

Woolen Goods

Flannels—Suitings—Overcoatings—Tweeds, Etc.

Fine Worsted Yarns

(FRENCH SPUN)

For WEAVING and KNITTING

TEXTILE BANKING COMPANY

FACTORS

Fifty Union Square

New York

L. F. DOMMERICH & CO.

Finance Account of Manufacturers and Merchants
Discounts and Guarantee Sales

General Offices

254 Fourth Avenue
NEW YORK

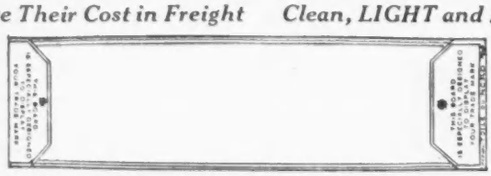
Established over 80 Years

Twenty Years Manufacturing Cloth Boards

THE CHAFFEE PATENT CLOTH BOARD

They Save Their Cost in Freight *Clean, LIGHT and Strong*

Made of Paper and wood
Need no covers
Will not Split or Warp; not liable to break



BOX SHOOKS and CLOTH BOARDS

M'f'd by CHAFFEE BROTHERS CO., Oxford, Mass.

J. P. STEVENS & CO., Inc.

Commission Merchants

23 Thomas Street 25 Madison Avenue

NEW YORK

W. Stursberg, Schell & Co.

Commission Merchants

Finance Manufacturers, Selling Direct or Through Agents
Everett Building, 45 East Seventeenth Street NEW YORK

RICHARDSON BROTHERS

8 BEACH ST., NEW YORK

TEXTILE WRAPPERS, TWINES, ETC.

"ROYAL" PRESS PAPERS

FOR FINISHERS OF

COTTONS, WOOLENS AND SILKS

WOOL GOODS MARKETS

Women's Wear Works Out of Difficulties

Consumer Support for Current Fall Disappoints—Spring Season Bright in Prospect

The immediate present and the future in the women's wear industry are two quite different markets. The current season is dragging itself slowly out of its lassitude and every burst of cold weather gives it additional spur. Distributors, including jobbers and garment houses, say that the careful manufacturing programs of mills during the late summer and fall have been helpful in preventing the slack retail trade from having a tangible effect in depressing the market. As it happens goods have been made about on the scale that they have been cut up, and the result has been no undue accumulations and fair stability in the secondary market. Some coat and suit manufacturers have stocks on their racks which will probably be moved before the season ends, but the high replacement cost of merchandise holds them back from making any radical slashes in price in order to accomplish this.

The chief interest reported on sport goods concerns cheap items which can be utilized in making up special orders of garments for inclusion in cut price sales next month. As previously noted this spot demand covers cotton warp pile sheen goods which can be obtained at low figures and which make up into a garment which looks to be a quality higher than its cost.

The future market, which concerns next spring, is firm and rising in a number of quarters. Flannels and kashas lead in the dress fabric field. A number of the more important mills on these goods are sold as far ahead as they will consider orders. In the spring coating range there is less of a definite nature regarding the market's leading type of fabric. The suede finish goods will doubtless carry through, but there is great likelihood of some specialty coming to the fore which will have a strong run for this particular season. Fluffy white coatings have been shown in some quarters and there is enough interest in them to warrant considerable thought on the possible expansion in the distribution of such lines.

Women's Wear Trade Notes

Keeley & Watson have advanced mannish suitings for Spring from $2.35 to $2.40 net.

The Gera Mills have added white fluffy coatings to their line for Spring which gives further basis for interest in white materials for that season.

Clark & Dana, Inc., have made the following prices on their white, colored, silk striped and checked flannels, width 58 to 60 inches, net 30 days: S-6800, $3.12½; 5880, $3.62½; 6740, $4.25; 6820, $3.37½; X-6820, $3.50; 6950, $3.62½; X-6950, $4.12½.

Salt's Textile Co., opened spring lines on Dec. 4 including many new effects in raised surface fabrics utilizing tussah, spun silk, artificial silk, wool, worsted, mohair, etc. A full color range is shown including a number of new shades.

Scoured Wool Records

Scoured wool at the first Brisbane sales touched 66¼d., which establishes a new Australian record, says *The Sydney Mail*. The top price previously was 64d., secured last season and in the 1920-21 season, in both instances in the Brisbane market. The following is a summary of record prices for scoured wool in Australia since 1905:

Season.	Record Price Pence.	Season.	Record Price Pence.
1905-6	26	1915-16	44¼
1906-7	25	1916-17	43½
1907-8	27¼	1917-18	48
1908-9	23¾	1918-19	48
1909-10	25¼	1919-20	49
1910-11	24½	1920-21	64
1911-12	24¾	1921-22	51
1912-13	26½	1922-23	57¾
1913-14	28	1923-24	64
1914-15	28	1924-25	66¼

Activity of Wool Machinery

Washington, D. C.—The Department of Commerce announces the following statistics on active and idle wool machinery for October, 1924, based on reports received from 906 manufacturers, operating 1,078 mills. This is exclusive of 13 which failed to report for the month. There are pronounced gains in all departments over September. The low point appears to have been touched in July and August.

ACTIVE WOOL MACHINERY FOR OCTOBER, 1924, WITH COMPARATIVE FIGURES FOR SEPTEMBER, 1924, AND OCTOBER, 1923

Month	Looms			Sets of cards	Combs	Spinning Spindles	
	Wider than 50 in. reed space	50 in. reed space or less	Carpet and rug			Woolen	Worsted
	Per cent active of total number of machines						
October, 1924	72.4	75.8	76.7	83.4	79.8	83.3	75.4
September, 1924	64.9	73.8	73.7	81.3	72.5	79.3	66.5
October, 1923	76.8	81.0	86.2	86.1	75.9	83.9	83.9
	Per cent active of total hours (maximum single-shift capacity)						
October, 1924	73.9	65.1	71.6	91.8	98.1	90.8	78.7
September, 1924	65.9	59.1	65.2	87.1	86.3	86.4	67.0
October, 1923	76.7	73.9	84.2	92.7	86.2	88.0	87.0

BRADFORD NEWS BY CABLE

Bradford, Eng., Dec. 26 (Special Cable to TEXTILE WORLD).—The Weekly Wool Chart index number for November is 222, compared with 212 for October and 165 a year ago. Big shipments of all qualities of piece goods continue to Japan. Extensive sales of overcoatings to America. Tweed trade is busy and also outerwear and hosiery.

Cleaning Up Stock Goods in Men's Wear

Mills Find Special Offerings Snapped Up—Influence of Top Coats Success

An interesting sidelight on the situation is the offering of stock overcoatings by a number of manufacturers and selling agents at a discount and the generous support which has greeted this action. Clothiers are interested in such goods, not only for their possibilities for making up coats for special retail sales in January and February, but for carrying forward into the fall, 1925, season. In one instance, it is reported, this last purpose is aided by the fact that the seller is giving June 1 dating. So far as value is concerned overcoatings at 10%, and in some cases more, off, are unquestioned buys at present, since the market is faced with the likelihood of a 25% advance at the formal opening of the fall, 1925, season. It may be that this advance will be restrained by the fact that several of the large mills were buyers of wool on the rise, and hold stocks below the elevated figure which the raw material market has reached. However, on the full current replacement cost a greater advance would be warranted.

The great success of top coats last spring and during the past fall is being considered in its relation to the further development of the ulster. There is a feeling in several quarters of the market that the ulster will give place to a different type of garment next season, not only because the top coat of the heavier weights has been found wearable in the colder weather, but because the growth in use of closed cars has been narrowing the field of utility which had much to do with the rise of the ulster to general use—the open automobile in cold weather.

The opening date for the general run of fall, 1925, goods remains indefinite. A few selling agents in the market are looking for action on the part of the early birds before the end of December, but more conservative opinion leans to the view that nothing will be done until well into January. The old idea is being revived that an opening is useless unless buyers are ready to operate, and it is not believed that buyers are hungry enough for new goods at the prices which ought to be named to warrant anything but a late opening.

The recent showing of blankets for next season at advances of only 5 to 10% is a move which buyers cannot count upon as forecasting the advance in overcoatings. Manipulation may, however, serve to keep down the price on men's wear, though, of course, it means a loss of quality.

Men's Wear Trade Notes

Stoney & Starkey, Inc., have opened a line of plaid-back overcoatings, 30 to 32 ounces, 54 to 56 inches, at $2.22½ net.

Walther Mfg. Co., in its men's wear department, has opened two lines of fancy worsteds in the new Highland Fawn shade at $3.10 and $3.30 net.

Columbia Woolen Mills, Inc., S. O. Stevenson, selling agent, have advanced cassimeres 12½c.

F. W. Stevens & Co. have quoted thin Clydesdale line of fancy worsteds at $3.30 net, a reported advance of 37½ c. over the opening.

H. P. McKenney recently advanced a range of overcoatings for the new season, 5c. per yard. On Nov. 28 this firm reduced certain stock overcoatings 10% and were reported to have taken a good business.

Wm. M. Lovering & Co., Inc., have moved into Room 616 on the sixth floor of 45 East 17th St. They were previously on the 13th floor.

V. W. Gottschling and L. R. Lally have been admitted to the firm of John G. Zabriskie & Co.

Thomas J. Maloney formerly with T. Guerin & Co., is now with Robert T. Francis.

Ray Osburne formerly with Warren & Hull has become associated with the Adelphia Worsted Mills.

Stockholders of the Daniel Boone Woolen Mills, Chicago, have been called by Secretary D. M. Zemans to meet on Dec. 16 to consider merger of their business with "one of the largest outstanding garment manufacturers in the world, having assets in excess of $9,000,000."

ESTABLISHED 1865

SCOTT & WILLIAMS

INCORPORATED

The Attention of Manufacturers is Invited to Our New MODEL K

Producing a fabric without lines, using a latch needle, permitting speed of production, the making of heavy heels and toes and perfect plaiting.

Increased width of top and a greatly pronounced loose course for looping are features of great value.

Established 1865

SCOTT & WILLIAMS

Incorporated

366 Broadway New York

Hamilton Ont.	High Point N. C.	Paris France	Barcelona Spain	Porto Portugal
Buenos Aires Argentine	Sydney Australia	Shanghai China	Osaka Japan	Milan Italy

KNIT GOODS MARKETS

Promise of Larger Wool Hose Business

Conflicting Influences Affect 1925 Outlook—General Market Somewhat Slower

While there is considerable difference of opinion as to the volume of business being done on hosiery from week to week in the primary market, there is no question that buying of the general run of staples has slowed down. Seasoned selling agents look for little more than routine trading from now until the turn of the year; many of them are confident that a really heavy buying movement may be expected to start next March or April.

Conflicting reports are heard regarding the jobber's reception of new wool goods lines for 1925, and it is still too early to make any definite statements one way or the other. Expectation that goods in this general category will be higher priced later on is about balanced by the jobber's continued aversion to buying ahead. It is probable that some of the larger houses will make commitments now if they can arrange for delivery late enough next year to suit them, with the general run of the trade content to wait until early next year before giving any serious thought to wool goods, with the exception of course, of bundled goods.

Wool Revival Possible

In the opinion of some in the selling market 1925 is shaping up as a considerably better year for wool hosiery than 1923 or 1924. It is generally believed that jobbers as a class have pretty well cleaned up their stocks of this merchandise; it is certain that in instances goods which have been carried over for several years have been disposed of this fall. Prices for 1925 merchandise look attractive, and the return of the short skirt vogue offers at least a faint hope that many women will return to wool goods.

Improvement in the full fashioned silk situation continues an outstanding feature. A large majority of mills in this class are believed to be comfortably fixed with business for the nearby future, and further strengthening in this market seems inevitable, if for no other reason than that raw silk seems bound for still higher levels.

Hosiery Trade Notes

Insistent demand for quick deliveries of silk and wool goods for women to retail at around $1 has featured the market this fall. This development was altogether unexpected in most quarters, and few mills

(*Continued on page* 131)

No Overproduction of Hosiery?

Government Figures Show Fewer Dozen Pairs Produced in 1923 than in 1914

By *Louis R. Keeffe*

NOTWITHSTANDING general acceptance of the fact that there has been radical overproduction of all classes of hosiery, it is apparent from a study of Government statistics that actual production has not increased appreciably within recent years. This statement will be ridiculed by practically everyone in the hosiery business, at either the manufacturing or selling end, but it must be accepted as correct unless the reliability of Government census figures and reports to the Department of Commerce by mills themselves is disputed.

At the outset it should be understood that the statistics which are referred to below are derived from two sources. One is the production reports issued monthly by the Department of Commerce, the other official biennial figures published by the Census Bureau.

Monthly figures on hosiery production have been issued by the Department of Commerce since February, 1923. These statistics represent a compilation of reports to the Department from a large number of mills which may be considered as representative. For the twelve-month period February, 1923 to January, 1924, inclusive, the total production of all kinds of hosiery given by the mills reporting was 46,048,437 dozen pairs.

How's Your Arithmetic?

This total is a compilation of returns received from 270 identical establishments, operating 349 mills, which produced approximately 62% of the total value of hosiery reported at the census of manufactures, 1921. This percentage figure is important for the purposes of this article—keep it in mind.

Official Government census figures of hosiery production for 1914, 1919 and 1921 are given in the following table:

	Dozen Pairs	Value
1914.....	75,164,911	$98,098,599
1919.....	84,645,757	308,662,377
1921.....	80,240,936	290,488,560

It is a fair assumption, or at least as fair a one as can be made under the circumstances, that the 270 "establishments" operating 349 mills which reported a total production of 46,048,437 dozen pairs of hosiery for the twelve months February, 1923 through January, 1924, produced approximately 62% of the total value of hosiery manufactured in 1921, as well as that percentage in the latter twelve month period referred to above. It is also a fair conclusion to draw that they produced roughly 62% of the hosiery manufactured in dozen pairs for both twelve month periods.

If these assumptions are allowed (and we hope, dear reader, that you are still with us) then it follows that the figure of 46,048,437 dozen pairs of hosiery produced from February of last year through January of the current one is approximately 62% of the total number of dozen pairs produced in this country in that period.

Small Totals for 1923

Allow us that deduction, and we come to the inescapable conclusion that if 46,048,437 dozen pairs of hosiery produced in this country during the twelve months February, 1923 through January, 1924 amounted to 62% of the total production, the total production during this period was *approximately* 74,271,672 dozen pairs.

In other words, if our figuring is correct, hosiery production in this country during the last 11 months of 1923 and the first month of 1924 was actually smaller than production for the calendar years 1921, 1919 or 1914, as reported in official census figures.

It must be remembered, too, that the latter twelve-month period is more nearly representative of present "normal" production than will be the twelve months in the calendar year 1924, during which the industry suffered radical and unusual curtailment.

Decline in Imports

It cannot be claimed that foreign merchandise has cut into the business in the United States of domestic mills, for the reverse is true. Imports of cotton hosiery during the "normal" calendar year of 1914 amounted to 2,017,396 dozen pairs, valued at $2,543,839, while for the calendar year 1923 imports of this class of goods totalled only 610,872 dozen pairs, valued at $1,326,247.

The conclusion drawn from the figures set down above, even if it is only approximately correct, obviously disposes of the theory that actual production of hosiery in the United States is too great. The question of potential productive capacity is something else again.

"Too Many Machines"

"There are too many machines in the country" is a phrase often heard in any discussion of the hosiery industry, and it is likely that this comes

(*Continued on page* 131)

Heavy Buying of So. Ribbed Goods

Several Lines Withdrawn for Early Delivery—Varying Reports on New York State Policy

Confirmation of the market understanding that heavy business has been placed by jobbers on men's heavyweight cotton ribbed underwear made in the South was received this week in official announcement of the withdrawal of the Mayo line, for deliveries through March. It is well known that another of the large southern mills has been "through," for the first delivery period, to all intents and purposes for nearly two weeks. Official announcement of withdrawal of the latter line is not being made because of the company's desire to take care of a few old customers who have not yet got aboard at the low prices named several weeks ago.

It was obvious as soon as prices were named by the southern producers of men's ribs that their production would quickly be taken up for early 1925 delivery. The reduction applied to immediate delivery merchandise, as well as to early deliveries for next year, could hardly have failed to bring in heavy business.

Northern Lines Offered?

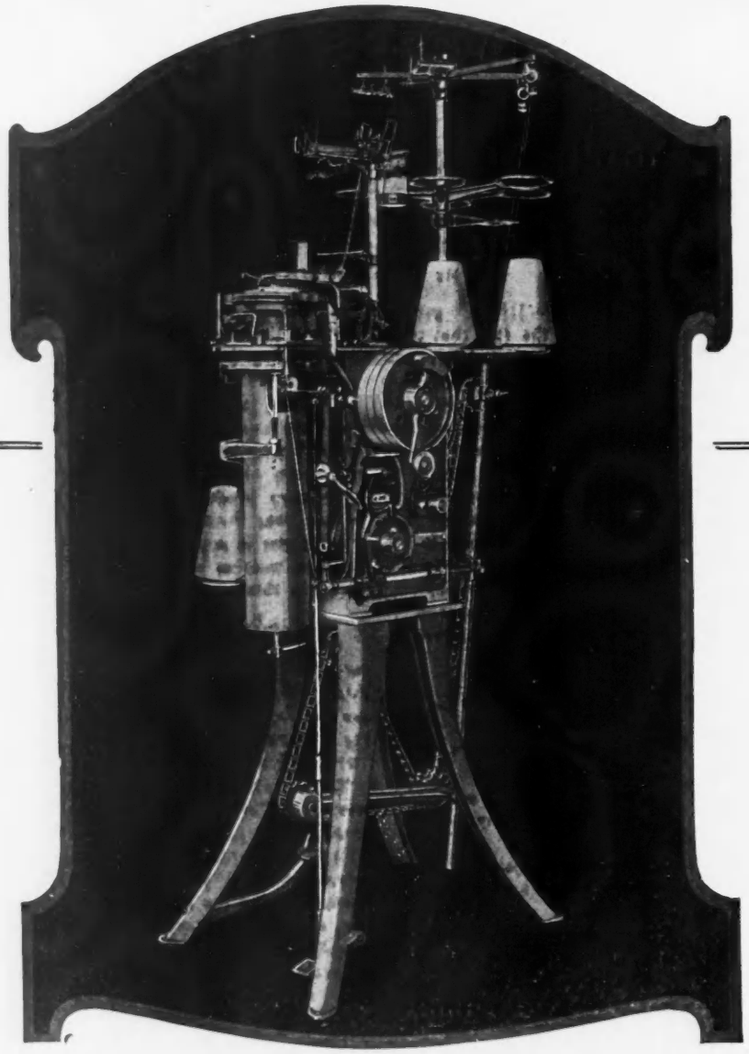
Interest continues to center on the action to be taken by large mills in New York State. With one exception none of the large producers in the Mohawk Valley has named 1925 prices officially, and there a number of conflicting theories as to what course they will follow. The one northern mill which has announced new prices for immediate and future delivery put into effect substantial reductions which bring its goods into direct competition with southern merchandise, quality for quality.

Important mill representatives say that nothing will be done by any of the Utica group until after the association meeting scheduled for Wednesday and Thursday of next week in Utica, and that 1925 prices will certainly not be anounced until Dec. 15.

On the other hand it is reliably reported that a large mill in New York State, whose selling office in New York City claims to be ignorant of any new quotations, is offering merchandise in the Middle West for summer delivery next year at prices less than $1 higher than the net prices of the lowest southern manufacturer.

Wool Goods Fair

Additional lines of wool and wool mixed goods for 1925 have been priced, and the entire market is ex-



Wildman Spring Needle Knitter

Naturally it is your ambition to turn out better hosiery at every opportunity.

And our ambition has been, for the past 10 years, to make The Wildman Spring Needle Knitter produce finer and smoother fabric for *you*. Experience of users shows how well we have succeeded.

We are now able to sell Wildman Spring Needle Knitters in all foreign countries.

On request we will send the "Wildman Spring Needle Knitter Machine Instruction Book" giving detailed information and description of every important part of the machine.

TRADE MFG MARK

WILDMAN MFG. CO.
NORRISTOWN, PA.

We have issued a very complete and informative book, "The Science of Knitting." Price $3.00.

Knit Goods Market—Continued

pected to be open by the beginning of next week. In all instances prices are understood to run about the same as those of last year; expected advances have not been made, and in several instances lower figures are quoted, due, it is said, to the use of a higher percentage of cotton in mixture goods.

Fair business is said to have been placed in this division of the market. It is understood that in several cases volume is ahead of that received last year in a similar period of time.

Underwear Trade Notes

"Of course they're getting business," said the representative of a large New York State mill this week, referring to his southern competitors. "Let them! When they get through we'll show them how to sell goods."

A well known plant in the Mohawk Valley is reliably reported to be offering summer, 1925, deliveries of its men's heavy-weight ribs in the Middle West at $10.25 for 12 lb. suits, $11.25 for 14 lb. suits and $12 for 16 lb. suits.

A surface anomaly is presented by the fact that northern mills are apparently getting all the business they can handle for immediate delivery at maintained prices, despite the reduction in southern lines. It is generally understood that jobbers are maintaining their resale prices to the retailer on southern merchandise for the time being.

The jobber is certainly not buying any more northern goods than he has pressing need for, yet it is im-

Staple Hosiery Quotations

Prices printed below represent fair average market quotations on staple hosiery in the New York market this week. They apply to average quality merchandise, in mill packing, sold to the jobbing trade. Ranges are necessary because of variation in quality, weight and terms.

Men's

144 needle, 1 lb. transferred top, looped toe	$.92½–95
176 needle, automatic top, sewed toe	67½–72½
176 needle, transferred top	97½–102½
220 needle, combed, double sole	1.50–1.70
200 needle, full mercerized, double sole	1.60–1.80
220 needle, full mercerized, double sole	1.70–2.15
220 needle, fibre plaited, double sole (mercerized top, heel and toe)	2.35–2.50
240 needle, fibre-plaited, as above	2.62½–2.85
220–240 needle, silk and fibre twist, double sole (mercerized top, heel and toe)	3.00–3.25
240 needle, pure thread silk, 10 strand (mercerized top, heel and toe)	3.75–4.25
176 needle, all-worsted plaited over cotton, plain colors	3.25–3.50
176 needle, worsted plaited ingrain heathers	3.50–3.75

Women's

176 needle, hem top, sewed toe	85–95
176 needle, 1¼ lb., looped toe	97½–1.02½
220–240 needle, full combed, double sole	1.60–1.75
220–240 needle, full mercerized	2.25–2.62½
344 needle, mercerized, ribbed-to-ankle	3.00–3.30
160–176 needle, mercerized, ribbed-to-toe, light weights	3.00–3.50
220 needle, plain fibre, 3 seam back, 18–20 in. boot (combed top, heel and toe)	2.75–2.90
220–240 needle, plain fibre, 3 seam back, 18–20 in. boot (mercerized top, heel and toe)	3.00–3.25
(All-fibre goods in fancy stitches, 5–15¢ over above prices.)	
240–260 needle, silk and fibre twist (mercerized top, heel and toe), standard goods	
20 in. boot	5.37½–5.75
22 in. boot	5.75–6.25
240–260 needle, silk plaited over fibre, 20 in. boot (mercerized top, heel and toe)	6.00–6.50
200–220 needle, fibre plaited over worsted	6.25–6.50

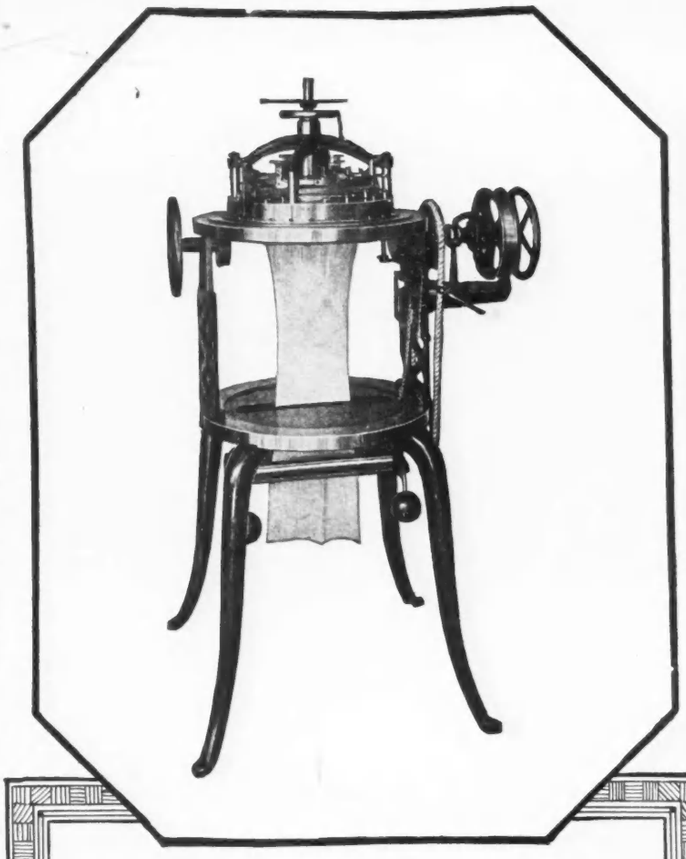
Children's

28 oz. misses' ribs (on 7; rise 5¢, fall 5¢)	97½–1.02½
Boys' 3 lb. 1 x 1 ribs (on 8; rise 7½¢, fall 7½¢)	1.85–2.15
300–344 needle misses' combed (on 7; rise 7½¢, fall 5¢)	1.55–1.70
300 needle misses' full mercerized 1 x 1 and 6 x 4 ribs (on 7; rise 10¢, fall 5¢)	2.25–2.40
344 needle misses' full mercerized, as above	2.42½–2.60
Children's ⅞ lengths, mercerized, ribbed leg, circular ingrain fibre top (average 7 to 10)	2.75–3.25
Children's ⅞ lengths, as above, fibre jacquard tops	3.25–3.50
Infants' socks, full mercerized, fancy tops	1.50–1.75
Infants' mercerized ribs	1.50–1.75

Full Fashioned

(Average quotations on dip-dyed, standard makes)

Chiffon, mercerized top, heel and toe, 20 in. boot	10.50–11.25
Chiffon, all over silk	12.75–13.25
8–9 thread, mercerized top, heel and toe, 19–20 in. boot	9.50–10.50
10–11 thread, mercerized top, heel and toe, 19–20 in. boot	11.00–12.00
12 thread, mercerized top, heel and toe, 20–21 in. boot	12.25–12.75
10–11 thread, all over silk	16.50–18.00
39–42 gauge half hose, 10–11 strand, mercerized top, heel and toe	6.00–6.50



BRINTON BODY MACHINES

Plain or Automatic

Built in all sizes up to 24 inches. In all cuts up to 14 needles per inch.

You owe it to yourself to investigate this machine.

Samples, prices and particulars on request.

Foreign Agents

Great Britain and the Continent
Wildt & Co., Ltd., Leicester, England.

Australia
J. H. Butler & Co., Sydney—Melbourne.

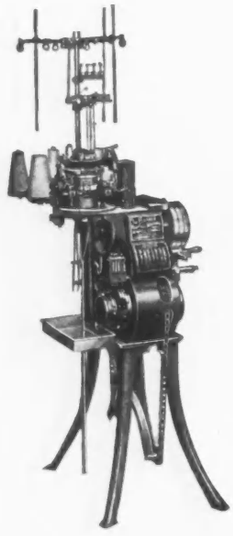
South America
Santiago Scotto, Galeria Guemes, Buenos Aires, Argentine Republic.

China and Japan
Elbrook, Inc., 51 Kiangse Road, Shanghai, China.

H. BRINTON COMPANY
Philadelphia Pennsylvania

BANNER

SPLIT-FOOT MACHINE



THE FORE-RUNNER IN THE KNITTING FIELD

Making all grades of Hosiery in a more attractive manner than ever before

HEMPHILL COMPANY

Main Office and Factory
PAWTUCKET, RHODE ISLAND

Southern Office
James Building
Chattanooga, Tenn.

New York Sales and Show Room
350 BROADWAY, NEW YORK

Philadelphia Office
Colonial Trust Bldg.
Philadelphia, Pa.

Knit Goods Markets—Continued

possible in several sections to obtain earlier than two to three weeks delivery on this class of goods. One large ribbed goods mill in Utica is understood to have sufficient business to run through the middle of January.

The Mayo Sales Corp. has withdrawn Washington Mills Co. merchandise for delivery through March.

The Blood Knitting Co. last week named prices as follows on its men's heavy-weight ribs: 16 lb. suits, $11.25; 11 lb. shirts and drawers $6.50; 10 lb. shirts and drawers, $6.12½; 14 lb. suits, $10.50. Terms, net 10 days, 30 extra. The last two numbers are new ones, offered for delivery March to October.

Overproduction in Hosiery?

(*Continued from page 127*)

closer to hitting the mark than does the widespread acceptance of the over-production theory. It is probable that, in a sense, there are too many machines potentially capable of producing marketable merchandise.

Rapid changes in style demands, the broad swing toward novelty effects in many classes of merchandise, have been met by equally rapid improvements in machinery by the builders thereof. It may be suspected that there is something of an oversupply of machinery which is incapable of producing goods which the market demands, or which cannot produce these goods economically.

But it seems to be established by the figures presented in this article that, whatever the extent of this oversupply of machinery, it is certainly not in actual operation, contributing to actual overproduction of merchandise. Is it possible that this excess machinery capacity has been exaggerated?

Consideration of this phase of the question brings up a number of points—distribution of overhead, profit per dozen, getting back the cost of new machines within a reasonable time, etc—which we are not qualified to discuss.

The figures presented in this brief statement may be incorrect. There may be a joker somewhere. But on their face they seem to demonstrate that there has been no actual over-production of hosiery. Fewer dozen pairs actually turned out in 1923 than in 1914 does not indicate glutting of the market in a country whose population has increased steadily.

There may be no grain of comfort in this for the average run of hosiery manufacturer, but then again there may be. Draw your own conclusions. We are not presenting a bright original idea of our own, but are merely republishing the only available hosiery production figures, and pointing out an obvious inference.

Better Movement in Knitted Outerwear

Much Talk of Higher Prices for Staple Sweaters—Novelties Continue Slow

Somewhat better movement of staple sweaters for 1925 is reported in a number of sections of the New York market. There is considerable difference of opinion as to the extent of this improvement, but in important quarters where frank disappointment with volume was expressed two weeks ago it is stated that recent trading has been satisfactory.

Sellers' propaganda regarding the impossibility of maintaining present prices on staple sweaters much longer is increasing in volume. In important sections of the market pronouncements regarding higher prices to come are frequently made, with obvious intent. There is no question that higher prices than those now being quoted in many cases are justified by the raw material situation, and it is equally true that mark-ups will be put into effect as soon as business on the books appears to allow them.

Hosiery Trade Notes

(*Continued from page 127*)

were able to take advantage of it to the full.

A line of goods which is described as 352 needle misses' full mercerized ribs is offered at $2.25.

Other cheap prices heard on staple cottons are $1.50 for a 220 needle, combed, double sole sock, $1.60 for a full mercerized, 200 needle double sole sock; a 220 needle full mercerized sock at $1.70; 300 needle misses' combed goods are available at $1.55, 176 needle, hem top, sewed toe women's goods at 85c. and 1¼ lb., looped toe goods at 95c.

In sections a fair business has been done for next fall as well as for quick delivery, on men's fancy stripes. One number which has been well taken at $3.62½ for quick delivery and next fall as well is a cross dyed sock made of approximately 50% wool and 50% cotton, with a horizontal stripe of artificial silk.

Harold Hustler, New York, has been appointed eastern selling agent for the Portage (Wis) Hosiery Co., manufacturer of bundled wool socks. The line is now open for fall, 1924.

Neill & Haukap, New York, have been appointed selling agents for the Gloversville (N. Y.) Hosiery Co., manufacturers of infants' three-quarter goods.

Milo D. Burke, New York, has been appointed selling agent of the Allrite Knitting Mills, Philadelphia.

Our Latest 2-B Mechanical Builder

has many new ideas and patents applied for.

Non-lift Easy Starting Spindle. Nothing ever made to equal the soft starting of the winding.

Fool Proof or Adjustable Guide, sensitive in its relation—does away with the old method of long guide wire—will not cut or chafe the yarn while winding.

New System of Traverse enables greater production of skein or back-winding.

New Oil Feed Regulator gives uniform application to the yarn.

New Size Bobbin carries 3 lbs. of 150 Denier Rayon.

Also New Size Cone, carries 28 ounces of 150 Denier Rayon.

All Supports clear of the floor.

Cast Iron Gear Covers.

Rigid Frame,—has no vibration or shake to disturb the operation.

For higher knitting efficiency the 2-B Winder stands alone, therefore, we "guarantee" superior results above any other winder.

JACOB K. ALTEMUS

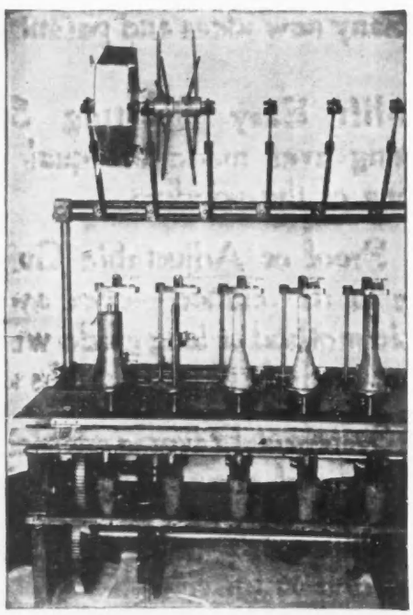
Established 1865

American St. below Lehigh Ave.,

PHILADELPHIA, PA.

Winders

Silk, Art Silk, Mohair, Worsted, Wool and Cotton



from

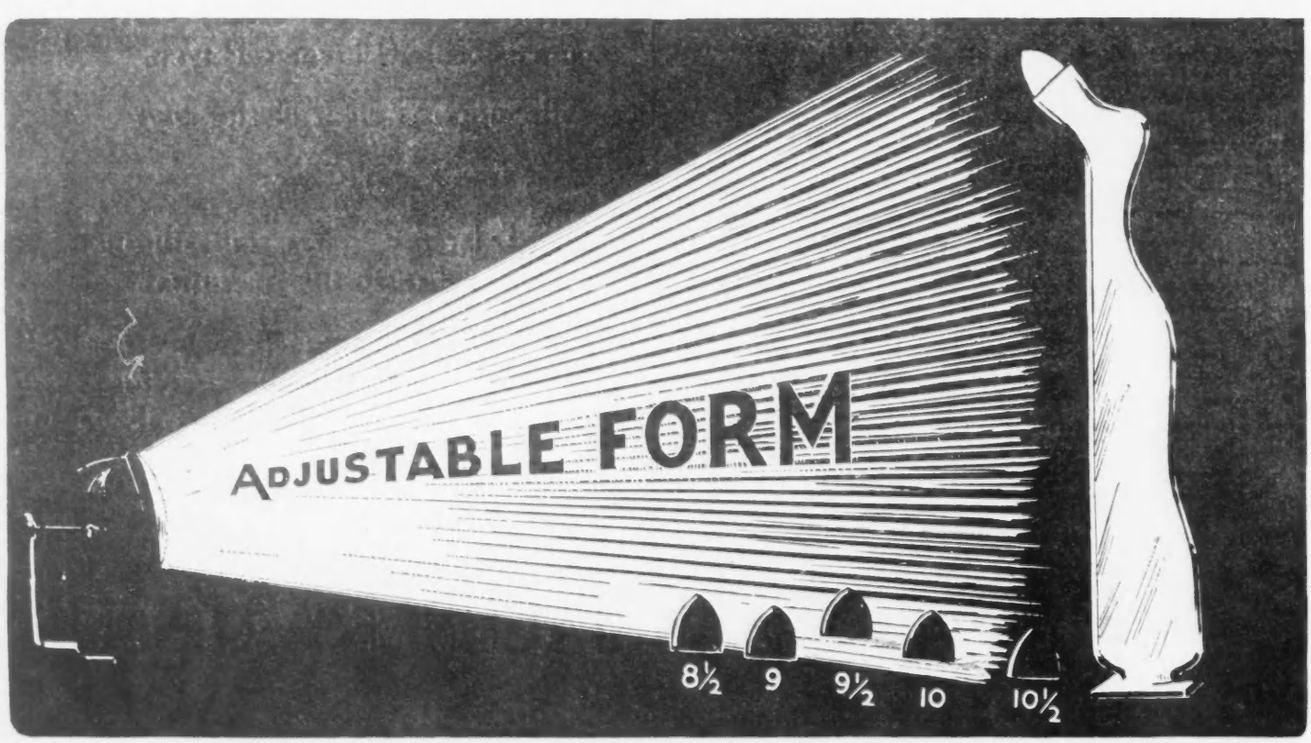
Skeins, Cones or Tubes

This machine is built with any number of spindles, on both sides; is equipped with an automatic builder (pat. pending), combined with a perfect tension, lubricating and positive knot-catching device.

Spindle is operated by the knee, which leaves both hands of operator free to tie ends and thread guide.

This machine is so constructed that it can be changed from a 14 oz. bobbin of silk to a 3 lb. bobbin in a few minutes.

Lindsay, Hyde & Co.
Philadelphia



PHILADELPHIA METAL DRYING FORM CO.
4550 TORRESDALE AVE., PHILADELPHIA, PA.
Manufacturers of The Only Adjustable Steam-heated Metal Hosiery Forms for All Classes of Hosiery

SILK GOODS MARKETS

Silks Sell Actively with Prices Higher

Cutters Are Anxious to Place Forward Business—Using Very Large Quantities of Silks

The broadsilk market has snapped out of its temporary lethargy and has begun to justify all the nice things said about it since election. Business is on an increasing scale with prices on all kinds of merchandise very firm. The cutting up trade is buying heavily and seems anxious to buy more. Several manufacturers commented on this phase of the situation and stated that they could sell all the merchandise they wanted and for almost as far ahead as they wished. The dress houses have been cutting enormous quantities of silks since the middle of November. They have been getting orders earlier this year than last, and where they lack actual orders they are willing to assume the small speculative risk involved. They are convinced that silks are cheap and the stock houses that handle the big volume at small profits are getting ready for an unusually big season.

Just how strong the situation is at present and just exactly how confident silk manufacturers feel is seen in the fact that most of them handling the staple crepes are turning down business further ahead than the middle of December. Prices on all qualities have been advanced 10 to 15c a yard since early in November, due to the increased cost of raw silk. Buyers have paid these advances without question. Several sellers stated that they were going to put into effect another similar rise next week. These advances refer to the better grade merchandise that sells between $1.50 and $2.25 a yard. Gains have been smaller proportionately on the georgettes and others that sell around $1.00 a yard.

To pick out any particular quality that is selling better than others is difficult at the moment, for all are good. The staple crepes are active with georgette holding its popularity and with crepe-de-chine in light colors almost as good. Stocks of satin crepes are reported as much reduced with active interest in spot goods. Stocks of other materials are smaller than two weeks ago, with prints about the only things that offer the buyer a chance to shop around. Washable broadcloths for sport dresses are also being bought around $1.30 to $1.40. This material can be made up into effective models to sell at a reasonable figure. It is understood that prices will soon be raised on this fabric also.

SILK SITUATION AT A GLANCE

PRODUCTION:	Increasing
DEMAND:	Good
STOCKS:	Moderate
RAW SILK:	Stocks unchanged; Prices steady
SENTIMENT:	Optimistic, manufacturers turning down sales in anticipation of higher prices later on.

ACTIVE SILK STOCKS ON NEW YORK STOCK EXCHANGE

Week ending Dec. 2

1924 High	Low	Stock	Sales	High	Low	Last
35¼	25¾	Century Ribbon Mills	2600	33¼	31⅛	31⅛
38⅜	16¼	Julius Kayser & Co.	4700	25¼	23⅝	23⅝
37½	18	H. R. Mallinson & Co.	24,600	37½	35⅛	37½
33⅛	15¾	Van Raalte	1400	24½	21¼	23⅜

Still Higher Raw Silk Forecast

FOR the first time since the current advance began back in October, raw silk prices hesitated in their upward surge and the market became inactive and dull. Having accomplished an almost perpendicular advance of 350 Yen or say $1.20 a pound, in the space of seven weeks a breathing spell would seem to be in order. It is of extreme interest to manufacturers, though, to know whether this is simply a natural period of adjustment while the market digests its gains or whether it marks the top of the rise.

Opinion is far from unanimous on the point. One forecasting service has come out and stated flatly that the rise so far has had for its foundation nothing more than hopes and that somebody will be holding the bag when it collapses. Other market observers believe that while any talk of a collapse is sheer nonsense, that raw silk prices should and probably will fluctuate somewhere between $6.00 and $6.70 for the balance of the season. A careful analysis of the facts, however, force the conclusion that further advances are extremely probable.

Reasons for thinking that further advances are likely are based primarily on heavy consumption of the raw by mills in this country and evidences of increased consumptive demand on the part of Europe. The amount of raw silk that can be reeled is now definitely fixed. In Japan there is a crop that is approximately the same size as last year's. The Canton production due to internal dissensions in China will be materially reduced as will likewise the Shanghai crop.

The stimulus that the low prices for raw silk and finished silks had on consumption is seen in the steady increase in demand from mills during the months of July, August, September and October. During these months 132,500 bales of silk were used. This is at the rate of 400,000 bales of silk a year and let it be said that the last time this country used a quantity comparable with that figure, raw prices ranged between $8.00 and $10.00 a pound. If we are to base our estimate of silk needed between now and next season on the more recent rate of operations, it will be seen that up to 425,000 bales will be needed.

SUMMARY OF SILK CABLES

Best No. 1—Yokohama	2020 Yen
Exchange at 3 m/s	39⅛
Cost C. I. F. New York	$6.26
Stocks Yokohama Nov. 30th	23,500 bales

Cables reported a very quiet market in Yokohama last week with transactions amounting all told to only 300 to 400 bales in the open market. Prices were maintained up to the end of the period when it was intimated that the reelers were willing to make concessions of 20 to 30 Yen to induce some business. The Bourse has fluctuated in an erratic fashion without any definite trend. The sharp break of 100 Yen toward the close of the preceding week was followed by a recovery at the beginning of the current one which brought prices back to the high point. From there quotations sagged again only to rally once more as the open market grew weaker. Trading on the exchange has aggregated 1,000 bales a day. Prices in Canton have declined somewhat from the high point of the recent recovery and at the close was considered easy with holders willing to grant further declines.

Holiday Spurs Retail Sales of Ribbons

Wholesalers Also Report a Better Demand from Stores in Anticipation

Demand for ribbons gained considerably last week. The greater activity was due to an increase in interest on the part of both cutters and retail stores. The latter in particular seem to be cooperating with the manufacturers in better fashion than heretofore. Stores in the metropolitan district have arranged tasteful displays of gift novelties and holiday ribbons in their ribbon departments for the Christmas trade. That this stimulation of the buyer's interest will bear fruit goes without saying. Already better demand has been noted from stores, which usually comes after the year end.

The cutting up trade has also been taking larger quantities of goods than for many months. Dress houses have been making up numbers already both for stock and against orders which is about a month earlier than they usually do. A liberal use of ribbons from this source for trimmings and sashes is forecast for the coming three or four months. Satin moires in the medium wide numbers had a good call last week from the millinery trade. The latter were also interested in the failles in lighter colors.

Raw Silk Unchanged

Market Quieter in New York with Prices Weaker

Manufacturers were generally unwilling to concede the full advances necessitated by the high levels in Yokohama and as a result buying fell off considerably. The market was distinctively dull with importers underselling foreign parties in order to do business. Prices were irregularly 10 to 15 cents lower through the second half of the period despite the fact that there was no change abroad. Best No. 1/x 13/15 was offered freely in the neighborhood of $6.15 as against an actual cost of $6.25. High grade 13/15s were still scarce and holders rather firm but the 20/22's were in plentiful supply. The spurt in Tussah was not maintained but these sorts were still firmly held around $3.40.

Prices are as follows:

(90 days basis)

Japan Filature, Grand Double Extra	13/15	$6 70
Japan Filature, Double Extra A	13/15	6 55
Japan Filature, Double Extra B	13/15	6 40
Japan Filature, Extra Best	13/15	6 35
Japan Filature, Extra	13/15	6 30
Japan Filature, Best No. 1/X	13/15	6 20
Canton Filature, New Style	14/16	5 90
Canton Filature, New Style	20/22	5 55
Shanghai Steam Filature, "Anchor" grade (nominal)		7 50
Tsatlee Reeled, "Blue Dragon and Flying Horse"		5 60
Tussah Filature, eight cocoon		3 40

LASTING STEEL EQUIPMENT

is just as easy to buy as an inferior kind that is built of wood or composite material;—and it is a good deal cheaper in the long run.

If you haven't our complete catalogue with the new 16 page up-to-date supplement for your files, write us for the same. It will pay you to investigate.

ANGLE STEEL STOOL COMPANY

Mfrs. of Factory and Office Steel Equipment.

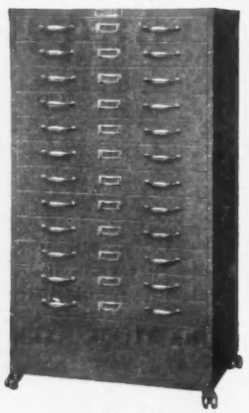
PLAINWELL, MICHIGAN

No. 22 D. S.

NO. 1018

No. 3030 C. S.

Trucks of various patterns and descriptions are shown in our catalogue, but we specialize in made to order requirements in this line.



No. 12-24.

But one of thirteen stock patterns in steel cabinets, for use in storing samples, tools, small parts, etc. Built special to order on request.

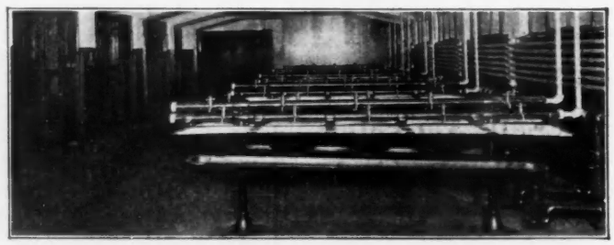
NO. 110

Our 40-page catalogue shows a complete line of Stools, Chairs, Trucks, Cabinets, Tables, Bench Legs, Waste Cans and many other items; all with prices.

—Please write for it—

No. 5-26.

Our special Bench Leg Folder gives a complete line of patterns in all heights and lengths.



MEECO INDIVIDUAL SANITARY WASHBOWLS

Were designed especially for mills and factories to provide a sanitary, efficient washing-up apparatus at a moderate cost. They have displaced the open sink, the common trough and other unsanitary methods of washing-up and have been pronounced by many authorities the ideal factory washbowl whether the plant employs 50 or 5,000 men. They are ruggedly built, simple in construction, easy to install and plumbing expense. They are space-savers, and eliminate high take up no more room than common sinks.

The complete list of firms using *MEECO* washbowls reads like the Blue Book of American business. 5,000 companies in 200 lines of business have adopted them as washroom equipment.

They Are Really Sanitary

There is room enough at each bowl for every man to get a thorough, clean wash without crowding. The unsanitary and inefficient features of washing in a running stream are here obviated. There is no slopping over on other men. There are no half-way attempts to get clean. There is no waste of water. Let your men put the plug in, fill the bowl and clean off the grease and grime. They can't do it in a running stream.

Shelving Boxes Partitions Lockers

Drinking Fountains Chairs and Stools

METAL MEECO PRODUCTS

MANUFACTURING EQUIPMENT AND ENGINEERING CO.

FRAMINGHAM, MASS.

Bradley Equipped Washroom in the Holeproof Hosiery Plant

This is the way we wash our hands — The Holeproof Hosiery Girls.

The Bradley Washfountain

Textile plants all over the country are installing the time saving, water saving, space saving, sanitary "Washfountain." Just as the "Bubler" Fountain has replaced the old tin drinking cup so the modern "Washfountain" is replacing the old dirty washing troughs, sinks and bowls.

A few of the plants now using Bradley Washfountains

Real Silk Hosiery Co.
No. American Lace Co.
Phoenix Hosiery Co.
Benton Hosiery Mills
National Dye Works
Milwaukee Worsted Co.
Holeproof Hosiery Co.
Daniel Boone Woolen Mills
Louisville Textile Co.
Loraine Manfg. Co.
Wm. Brown & Co.
Appleton Woolen Mills
American Textile Woolen Co.

Two sizes, 54-inch and 32-inch diameter for ten or six people

Write for Catalog

BRADLEY WASHFOUNTAIN CO., Milwaukee, Wis.

W. H. SILPATH, Representative

2401 Chestnut St., Philadelphia, Pa.

Sanitary . . . . . .

Even Among Careless Drinkers

Lip-touched "bubbler heads" often cause the spread of disease and contamination. R-S Fountains with the Vertico-Slant stream are *sanitary*, even among careless drinkers. Lips can't touch the nozzle—and pure, fresh water is always available. Install R-S Vertico-Slant Fountains and you're sure of drinking sanitation at all times.

The new Catalog F contains complete information on the R-S line. It includes prices and specifications of all R-S Fountains and is yours upon request. Write for your copy now.

RUNDLE-SPENCE MFG. CO.

67 Fourth Street, Milwaukee

R-S "Lips can't touch the R-S nozzle" R-S

FINANCIAL MARKETS

Broader Interest In Textile Stocks

Steady Demand In This and Other Markets is Moving Values to Higher Level

BOSTON, Dec. 3.—Slowly but steadily textile shares are resuming their old normal position in the investment market. In Fall River, New Bedford and the South, as well as locally, high grade textile shares are being taken more freely by regular investors and are attracting increased attention from investors who are only occasional buyers of such securities; listed and unlisted textile shares are also attracting increased attention in the New York market, and there is little question but that interest in such stocks would be more general and active if those houses making a specialty of such securities should cultivate the possible market as systematically and thoroughly as do bankers handling other classes of industrial securities.

It is true that high grade textile stocks suffered no such radical decline, as a rule, as did many other industrials, but it is also true that few of the latter can expect such a substantial recovery in stock values as seem certain to accrue to textiles within the next six months. It is also a fact that there are many textile shares not ordinarily included in the gilt-edge class that have suffered more serious declines than the latter, and that are now due for proportionally greater advances. Considerable discretion should be used in picking up stocks of the latter class, and it is to be noted that this is a characteristic of the present operations of many regular investors in textiles; that is, they are picking up certain low priced stocks that their investigations demonstrate are likely to stage a comeback. This accounts for the recent marked advance in such stocks as Hamilton Mfg. Co., Sharp Mfg. Co., Manomet, Nonquit, Ipswich, Salmon Falls and a number of other stocks whose values were hard hit by the recent depression.

Of textile shares listed on the local exchange, Pacific has shown the greatest advance since last report, rising from 76 a week ago to 81 today, this is largely based upon increased activity at the Lawrence plant and the starting of full-time operations at its southern plant. Amoskeag common has sold within a range of 71½ to 73¼, closing today at the latter figure and a net advance for the week of 1¼ points; few transactions have been reported in the preferred, the last sale being at 76½, or an advance for the week of 1 point. Both of the American Woolen issues have shown greater activity than for several weeks, the common selling within a range of 59 to 62¼, and closed today at 60½ which was a loss of a half point for the week. The preferred has sold within a range of 95½ to 96, and closed today at the latter figure, or a half point advance for the week. New England Southern Mills stocks are unchanged at 44 for the preferred and 9 for the common.

Future of B. B. & R. Knight Inc.

The final formal defaulting by the Consolidated Textile Corp., of payment of $258,750 interest due on the $7,393,000 of B. B. & R. Knight, Inc., 7% bonds due Sept. 1, involves no radical change in the status of the latter company from that which has existed during the last three months, excepting that control of the properties is now wholly in the hands of the bondholders committee. It was in anticipation of this emergency that the bondholders committee was formed and it was due to the latter's initiative that three of the company's best mills, the Royal, Artic and Centerville, were recently started up. It is understood that no steps will be taken by the bondholders committee to foreclose until they have at least 85% of the bonds on deposit. Thus far approximately 63% of the bonds have been deposited with the committee. Lockwood, Greene & Company, mill engineers of Boston, are conducting a survey of the Knight plants for the bondholders committee and it is understood that their investigation thus far shows that the plants are in better condition than when the bonds were issued. In the company's last balance sheet the plant account was carried at $23,352,000, which is approximately $58 a spindle for 400,000 spindles, and on this basis the properties are bonded at approximately $18 a spindle. It is probable, however, that the engineer's report will show a much smaller spindleage available for profitable operation. In this connection it may be noted that the three mills now being operated have a total of about 163,000 spindles. There seems little question but that the proper course for the bondholders is to deposit their holdings with the bondholders committee and support the latter's efforts to bring about foreclosure and bid in the property.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's Auctions:

Shrs.	Mill	Par	Price	Change
3	Ludlow	100	150⅜	+ 1⅜
2	Farr Alpaca	100	183⅜	+ 4⅜
5	Ipswich, pfd.	100	74	— 1
8	Salmon Falls	100	45	+ 11
2	Merrimac, com.	100	112	
15	Pepperell	100	139½	+ 18½
1	American Mfg., pfd.	100	80	+ 2¼
36	Total			

Dividends Declared

Mill	Rate	Period	Stock	Payable	To stock of
American Woolen	1¾%	Q	Pfd.	Jan. 15	Dec. 15
Lancaster Mills	2½%	Q	Com.	Dec. 1	Nov. 28

Southern Market Quiet

SPARTANBURG, S. C.—The market for southern cotton mill shares last week was rather quiet, with only slight changes in price, according to A. M. Law & Co. There continues a good demand for high grade common stocks with only limited offerings at current quotations. However, buyers are not willing to bid any higher for stocks now until they see further indications of definite improvement in the industry, which seems to be waiting for the final cotton report. Belton common is one of the stocks which has registered an advance, 72 being bid with no offerings. One reason for the demand lies in rumors that there may be a dividend on the common stock the first of January. This stock has not been paying dividends since 1920. Quotations on Judson common have also advanced. Dunean common displayed some weakness upon offerings

MILL STATEMENTS

Name and address of company	Line of business	Fiscal year	Assets						Total	Liabilities		
			Cash and debts receivable	Raw materials, mdse., etc.	Total quick assets	Real estate, buildings and machinery	Miscellaneous Amount	Miscellaneous Description		Accounts payable, floating and funded debt	Capital stock	Surplus, profit and loss, etc.
Davis Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	$350,474	$745,164	$1,095,638	$3,000,646	.....	.....	$4,096,284	$272,869	$2,500,000	$1,323,415
		Sept. 29, 1923	486,001	978,869	1,464,870	2,963,845	.....	.....	4,428,715	360,254	2,500,000	1,568,461
Narragansett Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	93,691	97,382	191,073	661,789	$28,105	Miscellaneous	880,967	60,000	600,000	220,967
		Sept. 29, 1923	134,112	137,253	271,365	650,342	95,000	Miscellaneous	1,016,707	82,645	600,000	334,062
Stafford Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	.....	.....	199,721	1,687,774	100,000	Miscellaneous	1,987,496	.....	1,000,000	987,496
		Sept. 29, 1923	115,901	243,293	359,194	1,692,015	100,000	Miscellaneous	2,151,209	.....	1,000,000	1,151,209
Lincoln Mfg. Co., Fall River, Mass.	Cotton	Sept. 27, 1924	365,153	845,293	1,210,446	3,774,148	.....	.....	4,984,594	897,541	2,249,900	1,837,153
		Sept. 29, 1923	475,513	886,875	1,362,388	3,598,307	.....	.....	4,960,196	838,230	2,249,600	1,872,865
Bellingham Woolen Co., No. Bellingham, Mass.	Wool	June 30, 1924	113,781	421,889	535,670	119,622	.....	.....	655,292	219,569	285,000	150,723
		June 30, 1923	93,665	308,505	402,170	118,272	7,898	Miscellaneous	528,340	157,110	95,000	276,230
Border City Mfg. Co., Fall River, Mass.	Cotton	Sept. 27, 1924	133,257	402,994	536,251	1,940,724	198,508	Miscellaneous	2,675,483	34,757	1,800,000	840,726
		Sept. 29, 1923	310,236	424,093	734,329	1,926,901	298,558	Miscellaneous	2,959,788	.....	1,800,000	1,159,788
Mechanics Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	341,786	15,427	351,213	701,835	.....	.....	1,059,048	.....	750,000	309,048
		Sept. 29, 1923	51,129	290,241	341,370	697,404	181,029	Miscellaneous	1,219,803	34,862	750,000	434,941
American Linen Co., Fall River, Mass.	Cotton	Sept. 27, 1924	205,261	26,056	231,317	1,328,113	30,000	Miscellaneous	1,589,430	166,000	800,000	623,430
		Sept. 29, 1924	180,877	135,919	316,796	297,197	93,100	Miscellaneous	1,707,093	365,000	800,000	542,093
Richard Borden Mfg. Co., Fall River, Mass.	Cotton	Sept. 27, 1924	35,752	294,568	330,320	992,878	197,850	Miscellaneous	1,521,048	120,000	1,000,000	401,048
		Sept. 29, 1923	46,331	452,478	498,809	932,697	316,556	Miscellaneous	1,748,062	232,426	1,000,000	515,636
King Phillip Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	512,061	764,768	1,276,829	560,273	322,587	Miscellaneous	4,159,689	.....	2,250,000	1,909,689
		Sept. 29, 1923	191,976	843,037	1,035,013	543,823	577,588	Miscellaneous	4,156,424	.....	2,250,000	1,906,424
Chace Mills, Fall River, Mass.	Cotton	Sept. 27, 1924	23,258	344,727	360,985	1,631,021	.....	.....	1,999,006	153,000	1,200,000	646,006
		Oct. 25, 1923	32,063	581,446	613,509	1,625,254	.....	.....	2,238,763	338,968	1,200,000	699,795

Audit the Past and Budget the Future

Business today, with all its human factors, is an exact science. The dividends of success are earned by managers whose operations are based upon dependable *facts* and figures.

The success of tomorrow is *planned* today. It is built upon the success of today, which the plans of yesterday made possible.

The Detailed Audit provides the exact knowledge modern management requires. It is *complete* in its presentation of the facts behind the figures. It is free from the qualified statements of the balance sheet audit. It is the *whole truth* —the necessary and *only* basis for the Budget.

The Business Budget protects profits, by preventing loss. It safeguards against over-expansion, over-production, over-expenditure. It shows the volume of expected sales, the consequent production schedules and inventory requirements. It is the business *plan*—a *guide*, not a law—based upon judgment, past experience, figures and facts.

Progressive management *knows that it must know*, and budgets the future. Elimination of ignorance and guess-work is as necessary to business as profit itself—for the SAVING MADE thereby *IS* profit—just as the difference between cost and selling price is profit.

ERNST & ERNST

AUDITS — SYSTEMS

TAX SERVICE

NEW YORK	CLEVELAND	DETROIT	MINNEAPOLIS	LOS ANGELES
BUFFALO	CINCINNATI	GRAND RAPIDS	ST. PAUL	ATLANTA
ROCHESTER	TOLEDO	KALAMAZOO	DAVENPORT	NEW ORLEANS
BOSTON	COLUMBUS	PITTSBURGH	INDIANAPOLIS	DALLAS
PROVIDENCE	YOUNGSTOWN	WHEELING	ST. LOUIS	HOUSTON
PHILADELPHIA	AKRON	ERIE	KANSAS CITY	FORT WORTH
BALTIMORE	CANTON	CHICAGO	OMAHA	SAN ANTONIO
RICHMOND	DAYTON	MILWAUKEE	DENVER	WACO
	LOUISVILLE	MEMPHIS	SAN FRANCISCO	

TAX OFFICE: 910 to 918 MUNSEY BLDG., WASHINGTON, D. C.

Lead and Lead Lined Equipment Chemical Lead Burning

Lead Lined, Tanks, Lead Linings for Tanks, Vats, etc. Lead Coils, Lead Sleeves, Agitators.
Lead and Lead Lined Pipe and Fittings. Pure Tin Linings for Vessels of Every Character.

Specialists in lead chemical equipment. Experienced in the design of non-corrosive equipment for the textile mill. Our products cover practically everything in the chemical line, where lead is used.

JOHN F. ABERNETHY
708-710 Myrtle Ave. Brooklyn, N. Y.

A. M. LAW & COMPANY

SPARTANBURG, S. C.

SOUTHERN COTTON MILL SHARES

Bought and Sold Outright or on Commission

Correspondence Solicited

INVENTIONS DEVELOPED

If you have an undeveloped invention, consult us. We will prepare practical designs for you; also procure your patent rights.

SIX TRADE MARKS

designed for you for $5.00. Do not send any money, just describe the type of trade mark you prefer.

Manufacturers Patent Company, Inc.
70 WALL STREET NEW YORK

TELEPHONES MAIN 8788 MAIN 8789

A. B. TURNER
INVESTMENT SECURITIES
79 MILK STREET
BOSTON

Mill and Manufacturing SHARES

Recent Circular on Request

Save in Freight by using

WILTS VENEER PACKING CASES

They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards, burglar proof, waterproof and clean.
Write for prices and samples.
Convincing prices — Quick service.

WILTS VENEER CO.
RICHMOND, VA.

BALING PRESS

(HYDRAULIC)

50 to 300 TONS PRESSURE

With or without motor

Size to suit your work

Ask us about them

Dunning & Boschert Press Co., Inc.
388 West Water St.
SYRACUSE, N. Y., U. S. A.

Sews *heavy* goods

Designed by the head finisher of a large New England woolen mill, the Dinsmore Improved Gear-type Rotary Machine has met with marked success.

It has proved a practical and effective machine for sewing heavy cotton and woolen goods, cotton ducks, woolen and cotton blankets, artificial leather, etc.

This heavy duty machine is operated by foot power and sews any fabric, thick or thin, wet or dry. It is simply and carefully constructed, the gears being accurately machined. A noteworthy feature is the very heavy base permitting of easy moving from place to place without danger of tipping over. Our line is most extensive. A catalog is yours upon request.

See pages 218-9 of the Consolidated Textile Catalogs

DINSMORE MFG. CO.
Salem, Mass.

Telephone Main 3593 Established 1854

CROSBY & GREGORY
HEARD, SMITH & TENNANT
PATENTS
Old South Building Boston
Patents and Patent Cases - Trade Marks - Copyrights
Special Attention to Textile Invention

Oliver L. Ballard

Boiler Room Engineering and Contracting

Dismantle and Remodel your Boiler Room. Rigging, Erecting, Furnace Work Specialty.
36 Years' Experience, all kinds of Boilers.
Agent for Jointless Fire Brick, Vulcan Soot Cleaner and Feed Water Regulator.

P. O. Box 154, Charlotte, N. C.

Looms

The Standard for all Narrow Fabrics

FLETCHER WORKS
Formerly Schaum & Uhlinger
Philadelphia

V. E. MERTZ 151 Fifth Ave. New York
HUMIDIFYING
Ventilating — Summer Cooling — Winter Heating — Automatic Control
Aerophor Mertz System, Blower System, Spray Head System and others.
Aerophor Mertz System

Steel Plate Construction
Steel Storage Tanks, Blast Furnaces, Gas Holders
Steel River Barges and Plate Work of all Kinds
Steel Transmission Towers
RITER-CONLEY COMPANY
General Offices, Pittsburgh, Pa.

Financial Markets—Continued

of the stock. As it is not paying a dividend, it is generally felt that the stock advanced a little too rapidly from the low of about 94.

Continued Activity in South

GASTONIA, N. C. While the average of 25 mill stocks as released by R. S. Dickson & Co. of Gastonia, N. C., and Goldsboro, N. C., and Greenville, S. C., reflected an advance of only 25 points last week over the previous one, yet the interest in common stocks continued just as great if not more so. Most of the advances occurred in stocks not carried in the above average and the greatest demand was for North Carolina stocks, Winget Yarn Mills advancing $5, Sterling $4 and Chine Grove $2. In the South Carolina market, Piedmont advanced $5, Poe $3, with a number of minor advances. There are many buying orders in hand at the moment with inquiries increasing, and throughout the market there is a general feeling of improvement. The mill business as a whole has shown decided improvement during the last few weeks, practically everything running full time, and many have a comfortable book of orders in hand for the immediate future with inquiries increasing.

New England Textile Stocks

(Quotations based upon last sales at Boston public auction and Boston Stock Exchange.)

American Woolen, pfd.....	96	94½
Amoskeag, com	73¼	71
**Androscoggin	142½	145**
**Appleton	720	760**
**Arlington	104	104**
**Bates	211¼	210**
**Bigelow-Hartford, pfd.....	114⅝	102½**
**Boott	135½	...**
**Edwards	115	110**
**Esmond, pfd	100¼	93½**
**Everett	122¼	129**
Farr Alpaca	183⅜	186¼
**Great Falls	24½	37**
**Hamilton Woolen	86	95¼**
Hamilton Mfg.	54	47½
**Hill	105¼	150⅝**
N. E. Southern, pfd.....	44	47
**Ipswich, com	26½	25¼**
**Lawrence	71⅝	82**
Ludlow Associates	150⅜	143⅞
**Lyman	142¼	145**
**Massachusetts	130⅜	125**
**Merrimack	112	110½**
**Nashua Mfg. Co., com.....	72¼	72**
**Naumkeag, new	190	186**
**Newmarket	140¼	141¼**
Pacific	81	77
**Plymouth Cordage	115½	117⅛**
**Tremont & Suffolk.....	108⅛	108½**
**York	112⅝	103⅝**

Southern Mill Stocks

(Quotations furnished by A. M. Law & Co., Inc., Spartanburg, S. C.)

Abbeville Cotton Mills.....	110	115
American Spinning Co.....	250	265
Anderson Cotton Mills.....	103	105
Aragon Mills	140	...
Arcade Cotton Mills.....	80	84
Arcadia Mills	250	260
Arcadia Mills, pfd.....	101	103
Arkwright Mills	99	105
Augusta Factory, Ga.....	43	43
Avondale Mills, Ala.....	825	875
Beaumont Mfg. Co.....	400	...
Belton Cotton Mills, com....	72	...
Belton Cotton Mills, pfd....	93	96
Bibb Mfg. Co.....	95	200
Brandon Mills, pfd.....	98	100
Brogan Mills	115	118
Calhoun Mills	...	115
Chesnee Mills	135	145
Chiquola Mfg. Co.....	255	265
Chiquola Mfg. Co., pfd.....	96	98
Clifton Mfg. Co.....	141	145
Clinton Cotton Mills.....	250	...
Columbus Mfg. Co., Ga.....	133	140
Cowpens Mills	65	70
D. E. Converse Co.....	121	124
Dallas Mfg. Co., Ala.....	150	155
Darlington Mfg. Co.....	87	91
Drayton Mills	100	...
Dunean Mills	108	111
Duncan Mills, pfd.....	98	99
Eagle & Phenix Mills, Ga....	165	170
Enterprise Mfg. Co., Ga.....	90	100
Gaffney Mfg. Co.....	92	94
Gainesville Cotton Mills, Ga.	165	170
Glenwood Mills	125	135
Gluck Mills	125	130
Graniteville Mfg. Co.....	175	...
Greenwood Cotton Mills.....	400	...
Grendel Mills	250	...
Grendel Mills, pfd. (par $50).	47	50
Hamrick Mills	145	150
Hartsville Cotton Mills.....	150	175
Inman Mills	158	160
Inman Mills, pfd.....	101	...
Jackson Mills	200	...
Judson Mills	169	173
Judson Mills, pfd.....	103	105
King, John P. Mfg. Co., Ga.	160	170
Laurens Cotton Mills.....	145	...
Limestone Cotton Mills.....	140	145
Marion Mfg. Co., N. C.....	124	130
Marlboro Mills	60	63
Mills Mill	285	...
Mollohon Mfg. Co.....	120	125
Monarch Mills	130	134
Musgrove Cotton Mills.....	80	85
Newberry Cotton Mills.....	127	130
Ninety-Six Mills	150	...
Norris Cotton Mills.....	85	88
Oakland Cotton Mills.....	115	120
Orr Cotton Mills.....	116	118
Orr Cotton Mills, pfd.....	98	...
Pacolet Mfg. Co.....	209	212
Pacolet Mfg. Co., pfd.....	104	1 06
Panola Cotton Mills, Class A, pfd. (Par. $90).....	87	90
Pelham Mills	18	21
Pickens Cotton Mills.....	124	126
Piedmont Mfg. Co.....	135	138
Poe, F. W. Mfg. Co.....	124	127
Poinsett Mills	101	103
Riverside Mills (Par $12.50).	9½	10
Riverside and Dan River..	212	216
Saxon Mills	99	101
Sibley Mfg. Co., Ga.....	63	67
Spartan Mills	150	160
Toxoway Mills (Par. $25)...	32	34
Union-Buffalo Mills	66	70
Union-Buffalo Mills, 1st pfd.	93	94
Union-Buffalo Mills, 2d pfd..	55	56
Victor-Monaghan Co	112	114
Victor-Monaghan Co., pfd....	109	111
Ware Shoals Mfg. Co.....	165	175
Watts Mills	...	70
Watts Mills, 1st pfd.....	100	103
Watts Mills, 2d pfd.....	130	135
Whitney Mfg. Co.....	105	108
Williamston Mills.....	195	...
Woodruff Cotton Mills.....	150	155
Woodside Cotton Mills Co...	115	118
Woodside Cotton Mills Co., pfd.	94	95½

Fall River Mill Stocks

(Quotations furnished by G. M. Haffords & Co.)

	Bid	Asked
American Linen Co.....	45	...
Arkwright Mills	...	20
Barnard Mfg. Co.....	...	85
Border City Mfg. Co.....	93	...
Borden Mfg. Co., Richard...	100	...
Bourne Mills Co.....	...	137
Chace Mills	50	55
Charlton Mills	133	140
Cornell Mills	110	130
Davis Mills	99	...
Davol Mills	...	...
Flint Mills	125	132
Granite Mills	70	...
King Philipp Mills.....	140	150
Laurel Lake Mills, com.....	...	30
Lincoln Mfg Co.....	100	...
Mechanics Mills	63	...
Merchants Mfg. Co.	115	125
Narragansett Mills	...	...
Osborn Mills	70	...
Parker Mills, com.....	...	30
Parker Mills, pfd.....	...	75
Pilgrim Mills, com.....	125	...
Pilgrim (Rights).....	19	...
Pocasset Mfg. Co.....	50	...
Sagamore Mfg. Co.....	250	265
Seaconnet Mills	...	...
Shove Mills	...	70
Stafford Mills	...	90
Stevens Mfg. Co.....	105	...
Union Cotton Mfg. Co.....	115	...
Wampanoag Mills	...	95
Weetamoe Mills	...	75

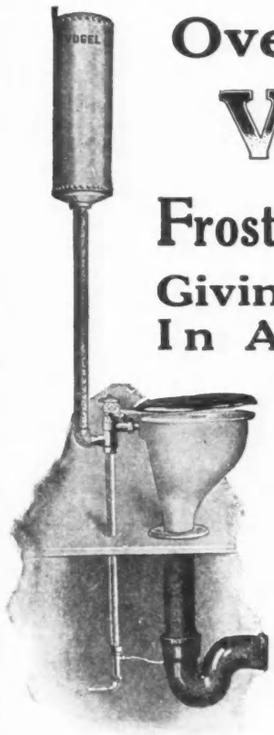
PHILADELPHIA, PA. The Philadelphia Wool Dusting Co. announce the opening of their new mill, located at 111 N. Water street, where machinery has been installed for the handling of all grades of stock requiring, willowing, blending, pickering, dusting, opening and processing. Storage facilities are also available to the trade in this new building.

Dividend Notice

TO THE STOCKHOLDERS OF DRAPER CORPORATION:

A dividend of Three Dollars per share has been declared, payable January 1st, 1925, to stockholders of record at close of business December 6th, 1924.

B. H. BRISTOW DRAPER,
Treasurer.



Over 375,000

VOGEL

PATENTED

Frost Proof Closets

Giving Satisfaction In All Climates

The ideal water closets for Factories and Mill Villages, where thousands have been installed.

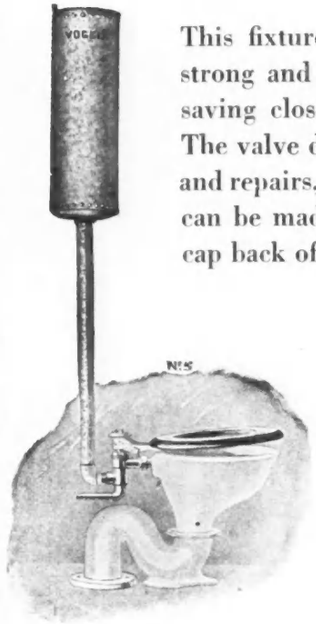
The most durable water closets made— excepting none.

They require no pit.

They save water.

All bowls have enameled rims. In service daily, winter and summer.

No. 5 Factory Closet



This fixture fills the demand for a strong and durable automatic water saving closet outfit for factory use. The valve device is extremely simple and repairs, though seldom necessary, can be made by removing the valve cap back of bowl.

Every Fixture Tested Under Hydraulic Pressure Before Leaving Factory

Insist on Getting the Vogel

Ask Your Jobber

JOSEPH A. VOGEL CO.

Factory and Office at

WILMINGTON - - DELAWARE

Stock Carried in St. Louis, Mo.

ESTABLISHED 1892

Schell, Longstreth & Co.

230-2 Chestnut St.
Philadelphia, Pa.

Carded and Combed

COTTON YARNS

All Numbers and
Descriptions for

Knitting and Weaving

Boston Cleveland New York
Utica Reading

Real Double Carded COTTON YARN

Spun by
THE MYRTLE MILLS, INC.

At our Myrtle plant we run choice, white, long staple cotton through two complete sets of cards. This produces a yarn so smooth and clean that it is often judged to be a combed yarn. It is spun in sizes ranging from 36s to 60s, single and ply, in right twist, suitable for knitting, weaving, mercerizing, and converting purposes; and in left twist, in sizes 20s to 50s, suitable for thread converting purposes.

Quotations and samples promptly submitted.

H. A. FLORSHEIM, *General Sales Mgr.*
225 Fifth Avenue New York, N. Y.

Also exclusively representing

GRAY MFG. CO.
FLINT MFG. CO.
ARLINGTON COTTON MILLS
PARKDALE MILLS, INC.
ARROW MILLS, INC.
ARKRAY MILLS, INC.

JOHNSTON MILLS COMPANY

"Direct to Consumer"

Knitting and Weaving ~ Mercerized and Natural
COTTON YARNS

As exclusive Selling Agents for the following array of established and controlled mills this organization is uniquely prepared to take care of your requirements—no matter how diversified or rigid—for the better grade of COTTON YARNS:—

BELTON YARN MILLS	10's to 24/1 Super-Karded
BROWN MFG. CO.	8 & 9/3-4 ply Karded
CLEGHORN MILLS CO.	36's to 40/1-2-3 ply Combed
CLOVER MILLS CO.	44's to 70/1-2-3 ply Combed
EASTERN MFG. CO.	24's to 28/1 Super-Karded
ETHEL COTTON MILLS	18's to 22/1 Super-Karded
GRACE COTTON MILL CO.	26's to 34/1-2-3 ply Combed
HIGHLAND PARK MFG. CO.	8's and 9/3-4 ply Karded
JEWEL COTTON MILLS	58's to 60/1-2-3 ply Combed
JOHNSTON MFG. CO.	10's to 24/1 Combed
MONROE MILLS CO.	26s to 36s/1-2-3 ply Combed
NORCOTT MILLS CO.	20's to 40/1-2-3 ply Super-Karded
PARK YARN MILLS CO.	6's to 14/3-4 ply Karded
ROBERTA MFG. CO.	10's to 18/1 Super-Karded
RONDA COTTON MILLS, INC.	8's to 14/3-4 ply Karded
ROSELAND COTTON MILLS CO.	40/1 Karded Splicing
SPENCER MILLS CO.	80/1-2-3 ply Combed
SPINDALE MILLS CO.	50/1 to 70/1 Combed
SPINNERS PROCESSING CO.	Mercerized-Gassed-Dyed All Counts

Sole Selling Agents ~ SPINNERS PROCESSING Co. SPINDALE, N.C.
PHILADELPHIA NEW YORK CHARLOTTE CHATTANOOGA BOSTON

Identified With the Mercerization of Cotton Yarns Since 1895

SINGLE

Plaiting Yarns
Exceptional Quality

Splicing Yarns
Remarkable Strength

Reg. U. S. Pat. Off.

FORREST MERCERIZING CO.

Sole Agents:
FORREST BROTHERS
119 S. 4th St., Forrest Bldg., Phila.

GLOUCESTER, N. J.

COTTON AND WOOL
MIXED YARNS

MERINOS

WOOL PERCENTAGES UP TO 25%

Yarns of Special Interest to Hosiery and Underwear Manufacturers

THOMAS HENRY & SONS INC.
P. O. STA. E PHILADELPHIA, PA.

COTTON YARN MARKETS

Yarn Buyers Look for Break in Cotton

Await Similar Reaction in Yarn Prices, and Offer Figures Spinners Will Not Consider

NEW YORK.—Business has not improved. Buyers who showed an inclination to operate ahead about Election time now apparently are basing their actions on the belief or hope, at least, that there will be a smash in the market for cotton and that yarn will show a similar decline. There is the greatest variation in opinions at this late date regarding the crop that could be imagined. For instance, it is reported that private estimates—with what basis for calculation it is not said—have estimated the crop as 13,700,000 bales and yet one does not have to go far to get the opinion that the Government has over-estimated the size of the crop and that the next report will show some evidence of this. In fact, there are those who declare with positiveness that there will not be 13,000,000 bales. It must be admitted that there is a bias in all these reports produced by the estimator's own desire or self-interest. It is uncommon to hear a spinner talk about a large crop, but dealers in their conversation or correspondence with spinners dwell insistently upon it.

Spinners Still Firm

Notwithstanding a softening tendency in the selling markets and ability in certain directions to operate on a lower basis than has yet been apparent, all efforts to move the spinner from his position of firmness are unavailing. The latter is in a better position today to judge accurately of his costs than was the case last year at this time. Then while he had based a good deal of his cotton he had not called much of it and missed a chance to secure it at a low figure. The longer he held out the worse the condition became. While the average spinner is not reputed to be long of cotton to any considerable extent, he has enough on which he knows the price for his requirements for some time to come. Inasmuch as he has not paid any such price as is predicted by the buyer he is naturally holding very firmly to quotations. This attitude is further intensified by the fact that there are very few spinners who are not sold ahead at least 60 days and in a good many cases into February or March. It is natural under these circumstances that efforts to bear the price of the staple should be unsuccessful.

Wide Spread on Hosiery Yarns

The attitude of the knitter toward prices on hosiery yarns is a difficult

(*Continued on page* 149)

Cotton Yarn Quotations

(Corrected at close of business Dec. 3)

Carded—(Average Quality)

Single Skeins and Tubes—Warp Twist

4s to 8s	39	—40	20s	—	—44
10s	40	—41	24s	46½	—47
12s	41	—42	26s	—	—47
14s	42	—43	30s	—	—50
16s	43½	—44	40s	—	—55

Two-Ply Skeins and Tubes

8s-2	—	—40	26s-2	48	—48½
10s-2	—	—41	30s-2	50½	—51
12s-2	—	—42	36s-2	—	—54
14s-2	—	—43	40s-2	—	—55
16s-2	43½	—44	40s-2 high breakage	—	—58
20s-2	44½	—45	50s-2	—	—64
24s-2	46½	—47			

Single Warps

10s	—	—41	24s	—	—47
12s	—	—42	26s	48	—49
14s	—	—43	30s	—	—51
16s	—	—44	40s	—	—56
20s	—	—44½			

Two-Ply Warps

8s-2	—	—40½	24s-2	—	—48
10s-2	—	—41	26s-2	49	—50
12s-2	—	—42	30s-2	51½	—53
14s-2	—	—43	40s-2 ordinary	56	—57
16s-2	—	—44	50s-2	65	—66
20s-2	45	—45½			

8s-3 and 4-ply skeins and tubes; tinged, 37–38; white, 39–40.

Hosiery Cones (Frame Spun)

8s	—	—39½	22s	43	—44
10s	39	—40	22s (silver)	45	—46
12s	39½	—40½	24s	44	—45
14s	40	—41	26s	45	—46
16s	41½	—42	30s tying in	—	—48
18s	42	—42½	30s extra quality	—	—49
20s	42½	—43	40s	54	—55

Combed Peeler—(Average Quality)

Warps, Skeins and Cones

20s-2	56	—57	50s-2	71	—73
30s-2	61	—62	60s-2	77	—80
36s-2	63	—64	70s-2	85	—90
40s-2	66	—68	80s-2	95	—100

Singles

12s	47	—48	30s	58	—60
14s	48	—49	36s	62	—64
16s	49	—50	40s	65	—67
18s	50	—51	50s	70	—72
20s	51	—52	60s	75	—80
24s	54	—55	70s	85	—90
28s	56	—57	80s	94	—100

Mercerized Cones—(Combed, Ungassed)

26s-2	73	—75	50s-2	85	—90
30s-2	76	—78	60s-2	95	—1 00
36s-2	78	—80	70s-2	1 07	—1 12
40s-2	82	—84	80s-2	1 20	—1 27
45s-2	82	—84			

Peeler—(Super Quality)

Single Cones

	Carded		Combed			Carded		Combed	
10s	42	—43	50	—52	26s	48	—50	58	—60
14s	43	—44	51	—53	30s	50	—52	60	—62
16s	43½	—44	52	—54	36s	53	—55	63	—65
18s	44	—45	53	—55	40s	56	—58	65	—70
20s	44½	—45	54	—56	50s	—	—	75	—80
24s	46	—48	56	—58	60s	—	—	80	—85

Combed Cones, Warps and Tubes

20s-2	62	—64	40s-2	75	—80
24s-2	64	—66	50s-2	80	—85
28s-2	66	—68	60s-2	85	—90
30s-2	68	—70	70s-2	95	—1 00
36s-2	72	—75	80s-2	1 05	—1 10

Combed Reverse Twist 2-, 3- and 4-Ply Thread Yarns—Skeins, Tubes or Cones

	Peeler		Sakelarides Average		Sakelarides Best	
24s	68	—70	80	—85	90	—95
30s	72	—75	85	—90	95	—1 00
36s	75	—80	95	—1 00	1 00	—1 05
40s	80	—85	1 00	—1 05	1 05	—1 10
45s	82½	—87½	1 05	—1 10	1 10	—1 15
50s	85	—90	1 10	—1 15	1 15	—1 20
60s	90	—95	1 15	—1 20	1 20	—1 25

Yarn Demand is Less Active

A Natural Reaction After Period of Activity—Prices Firm Although Cotton Declines

PHILADELPHIA.—Interest displayed in yarns has been smaller this week and prices are slightly less firm. The volume of yarns sold has decreased as the price of raw cotton has declined, although this factor has not been the main one in influencing buyers. Dealers have generally experienced two to three months of fair to good business which continued until last week and they now feel a falling-off of demand for the next few weeks is only a natural reaction and manufacturers will again be in the market when part of their present orders have been consumed. Manufacturers have in most instances purchased ahead, numerous contracts running until next May or June. It, however, is the first time this year such contracts have been received and mill buyers believe they are now justified in waiting for their own goods orders to catch up. They state they have placed sufficient yarn business for the time being and when this has been used or they receive larger goods orders further commitments will be made.

For these reasons dealers believe the slowing down of the market will continue for a short time irrespective of changes in raw cotton prices. While this is generally true the market presents spots where fairly large amounts of yarn have been sold this week, especially is this true where spinners or dealers have made slight concessions. For example, it is reported several 100,000 pound lots of 30s double carded were sold this week up-state at two cents lower than the average price now named on this count. These sales were made to mills which formerly held off purchases while waiting for lower prices to develop and dealers believe further commitments will not be made until they too receive additional goods orders to use a portion of these contracts.

Quotations Firm

Spinners are holding quotations firm at last week's figures notwithstanding the fact cotton has declined during this time. They have business of fair proportions on their books and are in no mood to force sales at this time. There has been very little shading of prices in weaving yarns and dealers state it was impossible early in the week to locate a spinner who would accept less than 46c. for 20s-2 warps of average quality, while several others refused less than 47c. Sales of medium sized quantities were reported at 46c., while 30s-2 have

ABERFOYLE MANUFACTURING COMPANY

MERCERIZED YARNS

MAIN OFFICE
Bankers Trust Building
PHILADELPHIA

James Building
CHATTANOOGA, TENN.

READING, PA.

Adams-Franklin Building
CHICAGO

Westaway Building
HAMILTON, CANADA

MILLS
CHESTER, PA.

Cotton Yarn Markets—Continued

MANCHESTER YARN CABLE

Manchester, Eng., Dec. 3 (Special Cable to TEXTILE WORLD).—Yarns of American cotton are easier and slow. Egyptian cotton yarns are firm with moderate turnover.

been moved at 52c. to 53c., the higher price being paid to secure quick shipment. Prices of weaving yarns between these two counts have remained unchanged in most instances while coarser numbers are being quoted a half to one cent lower by spinners, several of whom are in need of business in these numbers which have been in less active request than finer counts up to this time. Little interest is reported from carpet mills as dealers believe this trade has already purchased sufficient for their immediate needs. Sales of 8s-3, white stock, skeins are reported at 38½c. or a half cent less than last week.

Demand for knitting yarns has been spotty and the total sold smaller than recently noted. There is a fair request for counts from 12s to 20s for use in medium weight underwear which are in better request than finer numbers at present, interest in 26s and 30s double carded being small. There is a wide difference in quotations of extra quality yarn. For example sales of large quantities have been reported as low as 47c. for 30s while on the other hand several dealers claim they have sold this quality as high as 52c. Others are quoting this count at 48c. to 49c., the average being therefore at 49c. to 50c. Ordinary quality knitting yarns have been sold on a lower basis than 39c. for 10s this week by a number of spinners while others refuse to name lower price than 40c. Average selling prices, however, have been slightly lower than last week.

Long Staple Advances

While middling cotton has been declining combed yarn dealers point to the fact long staple qualities have advanced in several instances five cents a pound while ordinary grades have declined. Long staple is reported in good request for export, dealers stating this is the first time in their experience we have exported long staple cotton as we usually import large quantities of these grades. At the same time a brisk demand for this staple is noted from spinners who are receiving good sized orders from tire manufacturers. This condition is expected to exert a decided influence upon combed yarn prices in the near future, a number believing a sudden rise will be experienced in combed yarns because of the high prices now being paid for long staple cotton. Several mercerizers have placed fair sized orders recently and this indicates to dealers, that combed yarns may possibly prove cheap at their present level. **Spinners ask 77c. for 60s-2 while sales are noted at 75c. In single yarns the market is steady at 50c. for 18s.**

Carded Yarns Weaken

Combed Yarns Unaffected By Speculative Cotton Weakness

Boston.—The decline of about 100 points in the cotton futures market up to Tuesday and the partial recovery in cotton prices since then have kept the yarn market in an unsettled condition, and most buyers have been encouraged in the waiting policy that they adopted during the previous advance in cotton. The restricted demand plus lower cotton prices have caused many spinners of carded yarns to reduce asking prices 1 to 2 cents a pound, but the decline in actual selling prices of medium and coarse count carded yarns has not been in excess of ½ to 1 cent. Combed and fine count carded yarns, on the other hand, are practically unchanged in price although demand has been quite as inactive as for carded yarns.

The decline in prices of cotton futures and the recent slump in demand have demonstrated that dealers in this and other markets have quite a little yarn for forward delivery that has not been resold, but has also demonstrated that what has been reported regarding the well sold condition of spinners on carded weaving yarns was not exaggerated. Many spinners are still holding for a basis of 47c. and above for 20s-2 carded warps, although an increased number are willing to accept a 46c. basis and the market today may be quoted within a range of 45 to 46c. Coarser counts are somewhat weaker than this and the finer counts are firmer, the latter on a basis of 50 to 51c. for 30s-2 ply. With the exception of 30s and contiguous counts medium and coarse count hosiery yarns are relatively weaker than weaving yarns, or on a basis of about 39 to 39½c. for 10s, 43 to 43½c. for 22s and 49 to 50c. for 30s of extra quality; 30s tying-in yarn can be bought at 47 to 48c.

Combed and fine count carded yarns are quotably unchanged and demand is less active than for several weeks; the extreme firmness of prices of premium and extra staple domestic cottons and of Egyptian cottons are helping to sustain yarn values and to force them to a basis more nearly proportional to cotton values.

Lull in Yarn Buying

Enough Buying in Recent Weeks to Cover Operators

Chicago.—There has been a little lull in the buying last week due probably to the holiday, and also to the fact that many concerns made large purchases during the previous few weeks. Orders, however, have been

GROVES MILLS, Inc.

SUPER QUALITY
COTTON YARNS

COMBED PEELER, 24s to 80s, single and plies
COMBED SAKELARIDIS, 24s to 80s, single and plies. CONES, TUBES, SKEINS AND WARPS
Samples sent on request
SALES OFFICE—
225 FIFTH AVENUE, NEW YORK
MILLS AT GASTONIA, N. C.

VAN COURT CARWITHEN

300 Chestnut Street, Philadelphia, Pa.
Sole Representative
Whites, Stock, Dyed and Heathers
SWIFT SPINNING MILLS
BRADLEY MFG. CO.
MUSCOGEE MFG. CO.
Cotton Yarns of Quality
All of COLUMBUS, GA.
FROM MILL DIRECT TO CONSUMER

LOWELL YARN COMPANY

Main Office: 308 Chestnut St., Phila. Providence, R. I.; 17 Exchange St.
N. Y. Office: Room 614, 260 W. B'way Southern Office: Lowell, N. C.
Chicago Office: Room 1114, Old Colony Life Insurance Bldg.
Spinners to Consumers
Carded and Combed Peeler single and ply Cones, Skeins, Warps, Tubes
For Knitting and Weaving Trade

JAMES E. MITCHELL COMPANY

Cotton Yarns

Philadelphia Boston

FORREST BROTHERS

Forrest Bldg., 119 S. Fourth St., Phila., Pa.
Superior Quality Knitting Yarns
Sole Representatives
Bladenboro Cotton Mills—Vass Cotton Mills
8s to 30s Extra Carded

H.S.RICH & CO.
COTTON YARNS
PROVIDENCE, R.I

SOUTHERN MERCERIZING CO.
TRYON, NORTH CAROLINA

Our Specialty—
SINGLE Mercerized

Yarn for Splicing and Plaiting

Single Mercerized Yarns up to 100/1—Also Two Ply Mercerized 100/s to 140/s

Wire or write us for prices and samples

SOUTHERN MERCERIZING CO.
TRYON, NORTH CAROLINA

PHILADELPHIA OFFICE
Bart Pfingst
300 Chestnut St.

CHICAGO OFFICE
1114 Old Colony Life Bldg.
George J. Loerzel, Manager

CHATTANOOGA, TENN., OFFICE
911 James Building
Southern Yarn Co., Representative

PAULSON, LINKROUM & CO.
INC.

COTTON YARNS
WEAVING AND KNITTING

Sole Agents
STANDARD COTTON MILLS
CEDARTOWN, GA.

Highest Quality Mule Spun Yarns
6s to 24s

52 LEONARD ST., NEW YORK

PHILADELPHIA
PROVIDENCE

CHICAGO
CHARLOTTE, N. C.

YARNS—plus!

There is a "plus" factor in the purchase of Quissett Quality Yarns. The buyer of these yarns is assured—

1—That he is getting yarns made from high grade, carefully selected early bloom cotton.
2—That it is made by experts whose entire lives have been spent in the textile industry.
3—That the yarn will work smoothly on loom or knitting machine with a low percentage of breakage.
4—That a fabric made of this yarn will be a credit to the house.
5—That the yarn will always be of the same high grade, whether the order be the first or the fiftieth.

Carded and Combed Cotton Yarns in all Numbers and Descriptions.
Ply Yarns our Specialty.
Egyptians, Sea Island, Peelers, Sakelarides, Pimas and Peruvians.

Quissett Mill-New Bedford, Mass.

Wm. M. Butler, Pres. Edward H. Cook, Treas. Thos. F. Glennon, Agent

QUISSETT MEANS QUALITY

STEVENS
YARN CO., Inc.
86-88 Worth St. N. Y. City
COTTON YARNS
Selling Agents for
LILY MILL & POWER CO.
Combed Rev. Thread 26s to 50s
MASON COTTON MILLS CO.
Combed & Carded 20s to 40s
RHYNE-HOUSER MFG. CO.
Combed 50s to 60s
STEELE COTTON MILL CO.
Carded 26s to 30s
STAR THREAD MILLS
Carded 24s
PRINCETON MFG. CO.
Carded 20s
GEORGIA MFG. CO.
Carded 24s to 30s
ROYALL COTTON MILLS
Carded 20s
BOSTON PHILADELPHIA
PROVIDENCE CHARLOTTE, N. C

The Macrodi
FIBRE HEAD WARP SPOOL
After 14 years of the hardest mill use has demonstrated that it is
Durable—Economical
Write for particulars of the added traverse with corresponding increase in yardage — an important feature of this spool.
Prompt Deliveries
MACRODI FIBRE COMPANY
Woonsocket, Rhode Island

PHILA. COTTON YARN CO.
COMBED CARDED YARNS KNITTING WEAVING
135 S. 2nd St., Philadelphia

COTTON YARN SHIPMENTS
TO PHILADELPHIA, PA.
Shipments consigned to our care are carefully and promptly handled upon arrival by our large fleet of Auto Trucks and Teams with experienced employees. Representatives at all Terminal Stations and Wharves daily. Cartage prices quoted upon inquiry.
PETER CAVANAUGH, Inc.
22 Chestnut St. Philadelphia, Pa.
Freight Forwarders, Transfer Agents and Bonded Draymen
Established 1873

LINEN YARNS
Linen Threads and Jacquard Harness Twines
FLAX AND FLAX NOILS
Ramie Noils
ANDREWS & COOK
66-72 Leonard St. New York

Cotton Yarn Markets—Ctd.

placed for filling in, and there seems to be the steady undercurrent of demand which has prevailed since election.

Some of the large underwear mills are making plans to run full time, which will bring them in the market for further quantities of yarns, and indications point to a steady demand from the various trades.

Sales on 20s-2 have been made at 46c., with 30s-2 at 53c. and 40s-2 at 56c.; 16s-1 is being offered at 43½c. with 22s-1 at 45½c.

N. Y. Cotton Yarn Market

(*Continued from page* 145)

one for the dealer to solve. Firm offers on 22s cones have been made at 40c for a considerable quantity but this figure is entirely out of line with spinners' ideas and is said to be absolutely impossible to obtain. And yet a prominent knitter is reported to be declaring forcibly that he has been offered 40c on a good-sized lot of yarn and is holding for 38c. There is hardly a spinner in the South who will accept anything under 43c as a minimum and this is on a low quality of yarn. The generally quoted price is 44c for 22s. On 30s reports of offers as low as 46c have been heard but few mills would make a price under 48c and this figure would not be considered by a good many. It is known that in certain prominent instances knitters are in need of yarn for delivery beginning this month but they will not buy in the hope that they can get their supplies on a cheaper basis. Even if the market should go to 40c for 22s it is probable that they would continue to hesitate and want yarn at 38c. Inasmuch as they have missed the market before when this price was touched it is predicted that they will experience the same difficulty under existing conditions.

Weaving Yarns Sluggish

There is a weakening tendency to prices of weaving yarns, especially in the coarser numbers. On standard counts much less business has been done than in recent weeks and while spinners are not openly quoting lower prices, those of a week ago may be shaded somewhat. For instance, 30s-2 warps which up to a few days ago no one was willing to price under 52c can in all probability be secured at 51½c, not only for future delivery but for spots. There is not the evidence that dealers are attempting to sell short on certain counts of weaving yarn that there was a short time ago. The fact that the average seller has a comparatively small stock of popular yarns on hand makes it necessary for him to quote pretty close to the level that spinners demand. Where a certain amount of stock is in evidence, as on coarse yarns, there is increasing weakness and the spread between prices available in various quarters of the market is also increasing. Dealers look for an improvement after the first of

CANNON YARNS

Cotton Yarns of Quality

Quality:—The one essential factor in which we have striven to excel.

Quality:—That finished product which can be obtained only by the use of high grade, long staple, white cotton—modern machinery and equipment—experience and care in manufacturing—and scrupulous attention to details of wrapping, packing, etc.

This combination has made Cannon Yarns

THE STANDARD OF VALUE AND QUALITY

CANNON MILLS
INC.
PHILADELPHIA
New York Providence Boston
Reading, Pa. Chicago Amsterdam
Chattanooga

THE STANDARD OF VALUE & QUALITY

COTTON PRODUCTS COMPANY

Bankers Trust Building Philadelphia, Pa.

High Grade Warps

for MERCERIZING

Selling Agents for

The ELMORE COMPANY, Spindale, N. C.

SINGLE MERCERIZED YARNS

SILK
—
RAYON
—
RAYON and SILK

YARNS FOR KNITTERS

GEO. B. PFINGST
INCORPORATED
3rd & Chestnut St., Phila., Pa.

Combination Yarns of All Kinds

Cotton
Wool
Worsted
Merino
Silk Mixtures
Heather Mixtures

YARNS

CARVER-BEAVER YARN CO., Inc
366 BROADWAY, NEW YORK, N. Y.

CATLIN & COMPANY
COTTON YARNS
SOLE AGENTS FOR
LAWTON SPINNING COMPANY
HAMILTON MFG. COMPANY
TREMONT and SUFFOLK MILLS
SHARP MFG. COMPANY
and other mills furnishing full range of all numbers
NEW YORK BOSTON PHILADELPHIA CHICAGO

DURHAM SPINNING MILLS EXCELSIOR MILLS

J. BLACKWOOD CAMERON
American Casualty Bldg. Reading, Pa.

COTTON YARNS
Combed *Carded* *Mercerized*

Representatives

Philadelphia
F. OSBORNE PFINGST,
308 Chestnut St.

Chattanooga
R. D. McDONALD
James Bldg.

Charlotte
C. F. COBB,
538 Beaumont Ave.

D. H. MAUNEY, *Pres.* PHIL S. STEEL, *Vice-Pres.* D. A. RUDISILL, *Secretary*
J. S. P. CARPENTER, *Treasurer*

Mauney-Steel Company
COTTON YARNS

AN INCORPORATION OF SOUTHERN SPINNERS
FROM PRODUCER DIRECT TO CONSUMER

237 Chestnut Street Philadelphia, Pa.

Eastern Office, 336 Grosvenor Bldg., Providence, R. I.

MILLS DESIRING DIRECT REPRESENTATION AND HAVE THEIR PRODUCT SOLD UNDER THEIR OWN MILL NAME WILL PLEASE COMMUNICATE

O. S. HAWES & BRO.
FALL RIVER, MASS.
COTTON YARNS ALL FORMS AND NUMBERS

THE J. R. MONTGOMERY CO. WINDSOR LOCKS, CONN.
Manufacturers of
MERCERIZED COTTON YARNS Give the high Silk-like lustre In Knit Goods and Woven Fabrics

NOVELTY YARNS Poucle, Bouretes and Spirals in Cotton Wool, Worsted, Mohair and Silk

COTTON WARPS On Beams, Jacks, Spools and Tubes In Fancy Twist, Colors and Printed

Cotton Yarn Markets—Continued

the year but during the remainder of the month they see little hope for anything approaching normal activity.

Cotton Yarn Trade Notes

Announcement is made of the organization of a new cotton yarn firm known as Mason & Simmington by Clarence E. Mason and Charles C. Simmington. This firm started in business Dec. 1 with offices 902 Lafayette Building, 5th & Chestnut Streets, Philadelphia. Mr. Mason has been identified with the cotton yarn trade in that city for a number of years as the head of the Clarence E. Mason & Co. Previous to that he was identified with the cotton trade in the South, where he has a wide circle of friends among spinners. The firm of Clarence E. Mason & Co. will be merged with the new firm of Mason & Simmington as of Jan. 1, 1925. Mr. Simmington is also well known in the trade, having been for 21 years identified with the Philadelphia office of Wm. Whitman Co. Inc., and for the last eight years manager of that office. The new firm will handle both knitting and weaving yarns including carded yarns from 4s to 40s and combed yarns in 8s to 100s. They also act as the direct selling representatives of a number of well-known southern spinning mills.

W. S. Longbottom, identified with the cotton yarn trade for a number of years, has become associated with the Riddle Co., 219 Chestnut street, Philadelphia, cotton and mercerized yarn. He will cover the Philadelphia territory for this company.

Peter Turner, who has been covering Connecticut and New York City trade for the yarn department of William Whitman Co., has severed his connection with the company. He will be succeeded by Leon Young, who has represented the concern in Amsterdam, N. Y.

Albert Eckstein & Co., Inc., 31–33 East 28th Street, New York, has opened offices in Philadelphia in the Mariners & Merchants Building, 3rd and Chestnut Streets, Philadelphia. They will be represented here by J. C. McCabe, who has been associated with them for three or more years past, and James E. Snyder, who has been identified with the local trade for a number of years. Mr. Snyder will take charge of their imported yarns.

BREVARD, N. C.—Controlling interest in the W. S. Gray Cotton Mills has been purchased by Arthur Fleming of Philadelphia. The company will be reorganized with Mr. Fleming as president; George Norwood of Greenville, S. C., as treasurer; H. E. Erwin, formerly of Tuxedo, N. C., has been appointed superintendent. Name of the mills has been changed to the Sapphire Cotton Mills by the new owner. The capital of the company will be increased from $120,000 to $270,000. Production has been on combed cotton yarns.

Waste Contracts Pending

Market Divided As To Outlook—Available Supplies Slow

BOSTON.—If there were more wastes available there would be more business obtainable according to a leading member of the Waste Exchange. Manufacturing is on the increase but wastes are slow in coming out of the mills. The anxiety of the dealers to obtain waste material immediately, is not shared in by the mill managements which have larger fish to fry. Consuming demand at the present time, although very moderate, seems quite sufficient to take care of materials arriving. Strips still constitute the most active waste on the market. Good white strips in the south are quoted 20½c f. o. b. mill; in the east peeler strips are quoted 22½c, sak strips 24c and Arizona strips 24½c. Good comber stock is beginning to move more freely to knitting interests and this movement is likely to expand quite considerably in the near future.

There has been a very substantial turn-over in linters recently. Stocks of this commodity are quite abundant and prices have been rather low which has led to considerable purchasing on the part of consumers who have neglected the higher-priced picker and fly which has been obtainable in small amounts only. Inflow of wastes into this market is beginning to show slight improvement. The cotton industry has taken a turn for the better with manufacturing in the south and in the north speeding up very considerably but dealers' stocks are quite sub normal.

The situation is rather difficult to untangle. Although cotton is 800 or 900 points lower than it was at the beginning of the year wastes have maintained themselves to better advantage, holding firm owing to long continued shortage in mill output. It would seem as though the business that had been done in wastes for the year as a whole, although limited in volume, must have been profitable. In view of a much larger production of wastes in 1925 the question is upon what basis waste houses are likely to make contracts. A larger volume of wastes apart from other considerations forecasts lower prices and yet it is said that contracts are being made in threads, gunny-bagging, strips, combers and other material at prices suggested by present high level for wastes. Some conservative minds see a strong element of danger in the situation. Their pessimism may prove to be unjustifiable in the long run but only the future can tell.

Current Quotations

Peeler comber	22½—23c.
Peeler strips	21½—22c.
Egyptian, comber	21½—22c.
Choice willowed fly	12 —12½c.
Choice willowed picker	8½— 9½c.
Egyptian, strips	23 —24c.
Linters (mill run)	5½— 6½c.
Spoolers (single)	16½—17c.
Fine white cop	Nominal

J. B. JAMIESON COMPANY
COTTON YARNS
77 Summer St.
Boston, Mass.

Minimize your troubles—Insure maximum production
Weaving—COTTON YARNS—Knitting
Sold by
"Industrial"
are Good Yarns
INDUSTRIAL YARN CORPORATION
88 LEONARD STREET, NEW YORK

TILLINGHAST-STILES CO.
JESSE P. EDDY, Treas.
Cotton and Worsted Yarns
PROVIDENCE, R. I.
Room 922, Webster Bldg. 327 So. La Salle St., Chicago

ORSWELL MILLS Fitchburg, Mass.
COTTON YARNS
Carded and Combed—Gassed and Ungassed

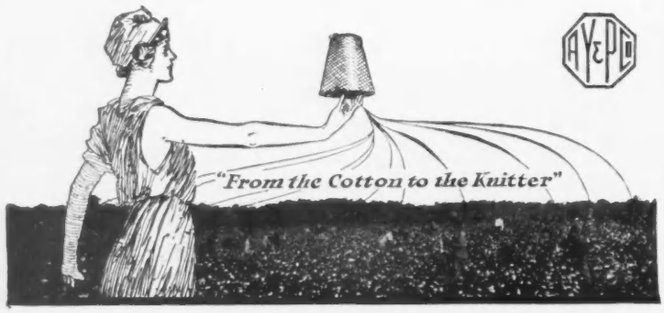
GATE CITY COTTON MILLS
Manufacturers of
Superior Quality WHITE KNITTING YARN on CONES
We sell direct to Knitters and guarantee satisfaction
217 Trust Co. of Georgia Bldg., ATLANTA, GA.

COTTON HAROLD W. O'LEARY COMPANY YARNS
52 Chauncy Street, Boston, Mass.

THE JOHN F. TRAINOR COMPANY
Cotton Yarns
320 Broadway New York

JOHN F. STREET & CO.
COTTON YARNS
201 Industrial Trust Bldg. PROVIDENCE, R. I.
CHICAGO PHILADELPHIA NEW YORK

EWING-THOMAS CONVERTING CO.
Specialists in Mercerized Yarns CHESTER, PA.
Warp Mercerizing for the Trade
Gassed—Natural—Bleached—Colors
DOUBLE MERCERIZED SPECIAL PROCESS



AMERICAN YARN & PROCESSING CO.

General Office
Mount Holly, N. C.

Spinners and Mercerizers

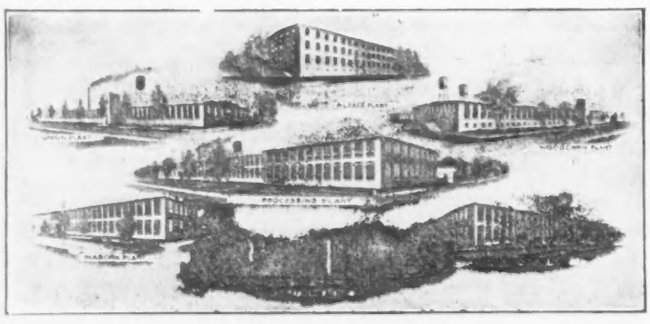
High Grade Combed and Carded Yarns

Our Mercerized Yarns are the Product of Our Own Mills

Representatives:

H. B. ROBIE
346 Broadway, New York City

FORREST BROTHERS
119 S. 4th St., Forrest Bldg., Philadelphia



FALLS MANUFACTURING COMPANY
MANUFACTURERS OF

High Grade Combed Peeler Yarns

Manufactured where climatic conditions are ideal.
Made especially for Ladies' Fine Gauge Underwear.

FALLS MANUFACTURING CO., *Granite Falls, N.C.*
Selling Agent, P. L. Gilkey, Lafayette Bldg., Phila., Pa.

James Austin & Son

260 West Broadway, New York

YARNS OF ALL DESCRIPTION

Selling Agents for American Thread Co. Yarns

Insulating Yarns a Specialty

DUNN-WETZELL CO., Inc.

Drexel Bldg., Philadelphia — 151 Fifth Ave., New York

COTTON YARNS

For Weaving and Knitting — Mixtures and Stock Dyed Yarns

DIRECT REPRESENTATIVES FOR

BUFFALO MILLS, INC.
Gastonia, N. C.
18/1 to 30/1 Double Carded Knitting and Weaving.

SOUTHERN MERCERIZING CO.
TRYON, N. C.
Mercerized 40/1 to 100/1
Also Two Ply 100/s to 140/s.

MONUMENT MILLS, Housatonic, Mass.

HIGH GRADE COTTON YARNS, White, Colors, Bleached
On Beams, Jack Spools, Cones, Skeins, and Chain Warps

FAST-BLACKS & COLORS — For Woolen Mills a Specialty — WE SELL DIRECT

WM. WHITAKER & SONS
Olney, Philadelphia

COTTON CARDING and CARDED COTTON

Roving, Shuttle Cops, etc.

COTTON YARNS PLUS SERVICE

ANY COUNT OR VARIETY
EASTERN OR SOUTHERN
GREY OR PROCESSED

Advice Based on Our Experience of Thirty Years in Bleaching, Dyeing, Mercerizing, Etc., at Your Service

E. J. McCaughey, 51 Arlington St., Pawtucket, R. I.

COTTON WARPS

DANA WARP MILLS Westbrook, Maine

Cotton Yarn and Warps, Carded and Combed

WHITE and COLORED — SINGLE and PLY — SELL DIRECT

COTTON MARKETS

Cotton Rules Lower; Crop Estimates Higher

Trade Demand Less Active, but Helps Check Decline Around 23c Level for March

The decline which had been in progress before Thanksgiving Day has continued during the week. To a certain extent, no doubt, the selling has represented a technical readjustment. For there can be no question that something of a speculative long interest had accumulated on the advance during the first half of November, the liquidation of which has been responsible for part of the recent selling. Otherwise, the decline would seem to have resulted from something of a slackening in trade demand and a tendency to increase estimates of the crop as a result of continued favorable weather for saving cotton in the fields.

Trade buying has remained more or less in evidence on scale down orders but has been much less active than early last month and besides the trend toward increased estimates of the supply, some question the effects of 25c cotton on world consumption for the season, while others anticipate some liquidation of spot holdings in the South before Christmas.

As a result of all these various considerations the price of January contracts broke to 22.69c and March to 23.05c during the middle of the week and while the decline was then checked by trade buying and covering, the tone of the market was rather nervous and unsettled.

Private estimates of the crop have been very conflicting. The figures have ranged from 12,704,000 bales up to 13,675,000 excluding linters, a difference of nearly a million bales between minimum and maximum views of the yield. A majority of the estimates, however, have been above 13,000,000 bales and there was a feeling here toward the end of this week that a Government estimate of between 13¼ and 13½ millions might have been discounted.

It cannot be said, however, that the trade would take a unanimously bearish view of Government crop estimate of 13¼ to 13½ million bales with prices around or below 23½c for March deliveries. On the contrary there are many who consider that the world's requirements after three short crops are large enough to absorb a crop of the size indicated, providing prices are not too high to restrict satisfaction of needs and the replenishment of moderate working supplies.

The elimination of the crop estimates of below 13,000,000 bales, however, has caused rather a change of attitude as to the probable average price for the season and whereas there was talk of 30c cotton when the market was around 25c during the middle of November, many traders now discuss 25c as a probable maximum and look for an average of between 23 and 25c a pound as a fair assumption with a possibility of temporary fluctuations both above and below that figure.

The following table shows Wednesday's closing quotations in the leading spot markets of the country, with the usual comparisons:

Market	Nov. 25	Dec. 3	Ch'ge	Last year	Sales
Galveston	22.80	23.15	—65	34.10	8,800
New Orleans	24.10	23.25	—85	34.50	5,210
Mobile	23.60	22.80	—80	33.63	662
Savannah	24.11	23.34	—77	33.75	2,015
Norfolk	24.00	23.31	—69	33.75	3,188
New York	24.25	23.40	—85	35.00	.....
Augusta	24.00	23.13	—87	33.88	3,724
Memphis	23.75	23.25	—50	35.00	17,650
St. Louis	24.00	23.25	—75	35.00	.....
Houston	23.90	23.10	—80	34.05	42,951
Dallas	23.10	22.25	—85	33.20	43,127

The following differences on and off middings are given as compiled from the reports received by the New York Cotton Exchange. The cotton grades marked** are not delivered on contract:

	Dallas	Memphis	Montgomery	Augusta	Average
WHITE GRADES					
M. E.	.90†	1.25†	.88†	1.00†	1.03†
†S. G. M.	.75†	1.00†	.62†	.75†	.84†
G. M.	.63†	.75†	.38†	.50†	.60†
S. M.	.38†	.50†	.25†	.38†	.34†
S. L. M.	.75*	.50*	.75*	.75*	.69*
L. M.	1.75*	1.25*	1.75*	1.50*	1.60*
**S. G. O.	3.00*	2.25*	2.75*	2.50*	2.62*
**G. O.	4.25*	4.00*	3.75*	3.50*	4.04*
YELLOW TINGED					
G. M.	.50*	.25*	.25*	.50*	.35*
S. M.	.00*	.50*	.25*	.25*	.25*
**M.	1.50*	1.00*	1.00*	.75*	1.48*
**S. L. M.	2.75*	1.50*	2.75*	1.50*	1.48*
**L. M.	4.00*	2.25*	3.75*	2.50*	3.73*
YELLOW STAINED					
G. M.	1.40*	1.75*	1.50*	1.50*	1.63*
**S. M.	1.65*	2.00*	2.00*	1.62*	2.09*
**M.	2.25*	2.50*	2.75*	2.00*	2.83*
BLUE STAINED					
**G. M.	1.75*	1.75*	1.25*	1.38*	1.35*
**S. M.	2.00*	2.00*	1.76*	1.50*	1.80*
**M.	2.75*	3.00*	2.50*	2.50*	2.68*

Cotton Statistical Data

(Fluctuations of Futures, N. Y.)

Option	Closed Nov. 25	For Week High	Low	Closed Dec. 3	Chge.
Dec.	23.74	23.89	22.52	22.92	—.82
Jan.	23.91	24.08	22.69	23.09	—.82
Feb.	24.06	24.06	22.96	23.28	—.78
March	24.21	24.41	23.05	23.47	—.74
April	24.37	24.40	23.34	23.64	—.73
May	24.53	24.77	23.40	23.81	—.72
June	24.53	24.57	23.51	23.86	—.67
July	24.53	24.75	23.53	23.91	—.62
Aug.	24.13	24.19	23.17	23.70	—.43
Sept.	23.76	23.80	23.02	23.33	—.43
Oct.	23.51	23.69	22.52	23.03	—.48

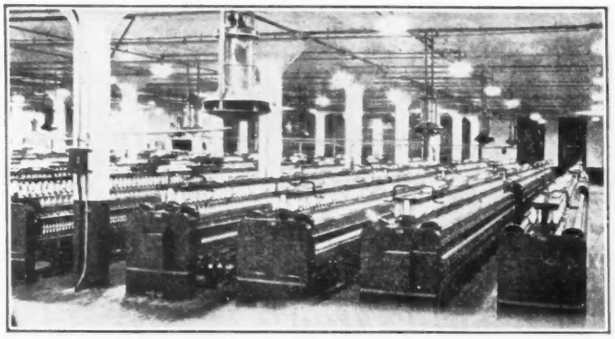
Spot Fluctuations for Week

(Middling)

	N York	N Orleans	L'pool
Fri., Nov. 28	23.85c.	23.70c.	13.59d.
Sat., Nov. 29	23.75c.	23.6 c.	13.47d.
Mon., Dec. 1	23.15c.	23.00c.	13.22d.
Tues., Dec. 2	23.40c.	23.25c.	13.04d.
Wed., Nov. 3	23.40c.	23.25c.	13.16d.
Thurs., Dec. 4	23.30c.	23.20c.	13.08d.

Spot Fluctuations and Stocks

	Prices Dec. 3	Stocks This week	Last Year
Galveston	23.15	609,517	373,673
New Orleans	23.25	410,873	235,393
Mobile	22.80	19,575	12,733
Savannah	23.34	70,825	78,851
Charleston	.....	36,843	57,484
Wilmington	.....	25,527	26,803
Norfolk	23.31	87,433	101,271
Baltimore	23.25	1,320	2,764
Augusta	23.13	65,540	54,500
Memphis	23.25	146,653	136,745
St. Louis	23.25	4,060	5,236
Houston	23.10	616,655	423,665
Little Rock	23.40	47,637	45,704



THE best raw material — equipment — labor — and supervision in both spinning and mercerizing are the factors which make Standard Mercerized Yarn Superior.

STANDARD-COOSA-THATCHER CO.
CHATTANOOGA, TENN.
Sales Office: Lafayette Bldg., PHILADELPHIA
Canadian Representative:
Wm. B. Stewart & Sons, TORONTO, MONTREAL.

Standard
Mercerized Yarn

Mercerized Yarns

C. P. Mercerized Cones & Skeins 20/2-80/2 Natural and Gassed

DIXIE MERCERIZING CO.
CHATTANOOGA, TENN.

operating

Dixie Spinning Mills

Modern, Electrically-Driven Yarn Mill at Chattanooga

PHILADELPHIA OFFICE: 300 CHESTNUT ST.
CHICAGO OFFICE: 166 WEST JACKSON BLVD.

REPRESENTATIVE—Canada, Slater & Co., Toronto.

It's a Good-Will Winner
When any Mill's Spinner
can deliver
Uniformly Perfect Packages
as he can do, day in and
day out, with

Sonoco

"Yarnsaver" (Round Nose) Cones

Sonoco Products Co., Mfr.,
Hartsville, S. C.

Eastern Office
410 Olympia Bldg., New Bedford, Mass.

Canada
W. J. Westaway Co., Ltd., Hamilton, Ont.

SAPONIFIED OIL
"Breton" Brand

A Perfect Emulsion With the Use of Water Only

Assures a free and easy scouring of yarn or cloth. Has the desirable feature of scouring and fulling possessed by Red Oil.

BORNE, SCRYMSER COMPANY
Established 1874
17 Battery Place, New York
BOSTON PHILADELPHIA
Works: Bayway, Elizabeth, N. J.

The Halliwell Company

Dyers, Bleachers and Mercerizers of Cotton Yarns in Warps or Skeins

High Class Mercerizing in warps only — Fast Colors A Specialty

A new plant, latest and most modern machinery and equipment, backed by forty years of specialized experience, guarantees service and satisfaction.

The Halliwell Company
PAWTUCKET, RHODE ISLAND

Worcester Bleach & Dye Works Co.
ESTABLISHED 1861
Bleachers, Dyers and Mercerizers of
Cotton Yarns and Warps
Winding on Cops, Tubes or Cones
Manufacturers of Cotton Yarns in Fast Colors—Also Glazed Yarns
"Sewing and Stitching Threads for All Industries"
WORCESTER, MASS.

SOLWAY DYEING & TEXTILE CO.
PAWTUCKET, R. I.
Dyers, Bleachers and Mercerizers of Cotton Yarns, Warp or Skeins
ABSOLUTELY FAST COLORS

THE UNIVERSAL MERCERIZING CO.
INCORPORATED
SKEIN YARN MERCERIZING
425 HILL STREET, WEST HOBOKEN, N. J.
Phone: UNION 6001

—Write to—
us for samples and prices of sewing, seaming and splicing threads for hosiery and underwear manufacturers. Accurate color matching. Prompt deliveries.

—Florence—
Thread Company
Florence, N. J.

United States Testing Company, Inc.
General Offices, 340 Hudson St., New York City
TESTS: Raw, Thrown, Spun and Artificial Silks.
Silk, Wool and Cotton Fibres. Yarns and Fabrics.
Fuels, Oils, Soaps, Waxes, Waters, Dyestuffs, etc.
TESTING HOUSES: New York Philadelphia Paterson New Bedford Shanghai

Cotton Markets—Continued

Short Interest a Support

Southern Cotton Markets Strong in Face of Large Crop

MEMPHIS, TENN., Dec. 1—Unsold stocks of cotton here are nearly 50% larger than they were at this time last year, but merchants are asking each other what has become of all of the cotton grown in the territory. Total stocks of 145,000 bales, which includes the buyers' stock, are about 6,000 bales ahead of the corresponding date last year, but there is great difficulty in obtaining cotton of lengths that are desired. Total stock, for the week, shows a decrease compared with increases last year and years before. Classers have been worked to the limit for weeks, and as yet there is no evidence of a definite lull. Arkansas and Mississippi are producing nearly twice as much cotton as they produced last year, and majority opinion here now places the crop of the belt at a minimum of 13,000,000 bales without linters. At the same time bids of 100 on the January contract, in New York, are being rejected; likewise sellers are turning their backs on bids of 350 to 375 on for strict middling commercial 1-⅛s, 450 to 475 on for full eighths, 650 for the full 1-1/16s and 850 for 1-¼ inch staples in grades of strict middling.

See Large Short Interest

The explanation seems to be the existence of a very large short interest which is being punished, but is taking nearly everything at top prices. Another explanation, which however may be only a part of the one already mentioned, is the shortness of fibre caused by drouth, so that this territory is called upon to supplement in an unusual way the supply of 1-1/16 to 1-⅛ cottons expected from sections producing big crops that are deficient in staple.

While the local trade is revising its crop ideas upward nearly all of the expected increase is credited to Texas and Oklahoma. Figures for North Carolina and Louisiana are being raised, but for Tennessee, Missouri and Arkansas they are being reduced. Some place the combined crop of Texas and Oklahoma at 6,250,000 to 6,500,000 bales, or about half of the crop of the entire belt.

Staple Cottons Stronger

These and Egyptian Sak. Very Strongly Situated

BOSTON, Dec. 3.—In the face of a net decline for the week in domestic futures of approximately 50 points the market for premium cottons has shown increased activity and flat prices are either 25 to 50 points higher or are unchanged for the week. Even full sixteenths, which are in relatively large supply, are only 25 points lower than a week ago, basis having been advanced by most shippers 25 to 50 points. Basis on 1 1/16 to 1 3/16 inch hard western cotton has been advanced fully 50 points, and some shippers have advanced basis on everything longer than full 1⅛ inch from 100 to 200 points and are practically out of the market so far as offerings are concerned.

The reported transfer of some 10,000 bales of 1 3/16-inch cotton to a tire company in partial settlement of a previous short sale of Egyptian Uppers is one of the factors responsible for advancing basis on extra staples, but lacks confirmation. Three firms were originaly reported involved in short sales of Uppers aggregating 20,000 to 30,000 bales, and it is believed that most of this remains uncovered, and that settlement may be made by delivery of domestic staples plus payment of differences involved. However, the domestic extra staple market is sufficiently strong without such support as the Delta yield is well below that of last year, while the Pima and Meade crops are even more reduced, and the available supply of straight Egyptian Sak. is being restricted by mixing at the gins with Pillion.

Quotations on 1 3/16 inch and longer hard western cottons are more or less nominal, as the majority of shippers are practically out of the market and asking as high as a basis of 2,000 points on for full 1¼-inch of strict middling grade.

The resumption of stable political conditions in Egypt apparently has been the signal for resumption of the squeeze in Sak. cotton, for the January option has advanced approximately 100 points during the week, that option closing today at $46.95 and the March option at $45.40. Apparently commitments for these months are larger than was anticipated, and it is also probable that the squeeze is being helped by the delivery of large quantities of mixed Sak. cotton that cannot be delivered

(*Continued on page* 161)

Market Statistics

Basis Middling

	Saturday, Nov. 29	Saturday, Nov. 22
10 markets average...	23.29c.	23.60c.
"	23.50c.	23.75c.

Premium Staples

Grade	Strict Middling.	Factors Prices	Table Memphis Nominal
1 1/8-in.....			26½—27½c.
1 3/16-in.....			28 —29c.
1 1/4 in.....			29½—31½c.

Current Sales

	For week	Week previous	Week before
Memphis total..	18,150	14,850	36,500
Including f.o.b..	10,300	6,600	14,550
10 markets.....	124,617	184,754	.....

Memphis Receipts, Shipments, Etc.

	For week	Last year	Year before
Net receipts....	20,273	12,083	17,876
Gross receipts..	44,505	40,463	55,378
Shipments	45,518	37,991	51,281
Total since Aug. 1, net	239,737	148,977	248,260
Total stock....	145,898	139,807	180,335
Increase for week	*1,013	2,472	4,097
Unsold stock...	73,000	54,000	95,000
Increase for week	4,000	.....	.....

*Decrease

THE ELMORE COMPANY
MERCERIZED
YARNS
Spindale
N.C.

Single Yarns
MERCERIZED
Bleached and Dyed on Cones

Specializing in Fugitive Shades
for Plaiting and Splicing

THE ELMORE COMPANY
Spindale, N. C.

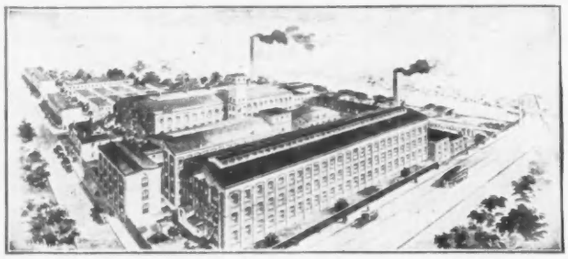
Selling Agents
Cotton Products Co.
Bankers Trust Bldg., Philadelphia

McCONNEL & CO., Ltd.
MANCHESTER, ENGLAND

Spinners and Doublers of Fine Cotton Yarns especially adapted for the making of Laces, Voile, Fine Hosiery, Dress Goods and for insulating wires. : : : : : : : :

REPRESENTATIVE FOR U. S.
(Except New England States)
F. C. CHAMBERS
3750 L Street, Philadelphia, Pa.

REPRESENTATIVE FOR NEW ENGLAND STATES
(Massachusetts, Connecticut, Rhode Island, New Hampshire, Maine and Vermont)
NORMAN C. NAGLE
80 Boylston Street, Boston, Mass.



EDNA WORSTED COMPANY
Worsted Yarns
for Weaving and Knitting
Ninth and State Sts. Camden, N. J.

New York Agency: Metropolitan Bldg.

GRUNDY & CO., INC.
108 S. Front Street, Phila.

Tops and Worsted Yarns
FOR
Men's Wear, Dress Goods and Knitting
Trade both in Grey and Mixtures

JAMES LEES & SONS CO.
Manufacturers of
WORSTED AND WOOLEN **YARNS**
for Weaving and Knitting
also
Minerva Yarns for Hand Knitting and Crocheting
Mills and Main Office—Bridgeport, Pa.
New York Office—1107 Broadway

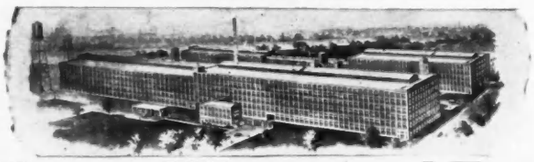
THOS. WOLSTENHOLME SONS & CO., Inc.
Frankford Ave. & Westmoreland St. Philadelphia, Pa. P. O. Station "E"

UNDERWEAR HOSIERY
SWEATER WEAVING
YARNS
COLORS, OXFORDS
AND FANCY MIXES
French and English Spun Worsted
French Spun Worsted Merino

BOTANY WORSTED MILLS, PASSAIC, N. J.
FINE FRENCH SPUN WORSTED YARNS
Of Every Description for Knitting and Weaving
Represented by **WALTER D. LARZELERE**
Main Office 2211 Packard Bldg., PHILADELPHIA, PA.
Branch Office 713 Fifth Ave. Bldg., NEW YORK, N. Y.

The Pitkin Worsted Co.
PASSAIC, N. J.
Spinners of Worsted Yarns in the Grey for Weaving and Knitting
Represented by
WALTER D. LARZELERE, 2211 Packard Bldg., Philadelphia, Pa.

Passaic Worsted Spinning Co.
Passaic, N. J.



Worsted Yarns and Tops

G. F. Landman & Co.
308 Chestnut St., Philadelphia
WEAVING YARNS
KNITTING
Worsted—Mohair—Merino—Woolen
Bradford and French Systems—White in Oil, Dyed, and Fancy Mixtures
2765 E. 55th St., CLEVELAND 1 Nassau Ave., BROOKLYN, N. Y.

PHILADELPHIA SILK THROWING CO.
Commission Throwsters
of a higher order
RAW SILK and RAYON COMBINATIONS
"In the Heart of the Hosiery Industry"
Rates no Higher For Superior Service
Randolph and Jefferson Sts. PHILADELPHIA, PA.

JEALOUS & FITCH, INC.
Selling Agents for
Virginia Worsted Co. Park Worsted Mills
Knitting and Weaving Yarns
10 High St. Boston, Mass.

JAMES DOAK JR. COMPANY
WORSTED SPINNERS
KENSINGTON PHILADELPHIA

WORSTED YARN MARKETS

Worsted Yarns Rise And Buyers Wait

Spinners Advance Prices—Stock Lots Reduced—Wool Market Big Factor

Activity in the worsted yarn market at present is not very prominent. In fact the market generally speaking is almost at a standstill. During the last two weeks, spinners have in most cases advanced their prices an average of ten cents a pound, and the higher quotations have not tended to induce much activity on the part of buyers. As a result buying to-day is limited, and spinners are entirely satisfied with the situation as they are not willing to sell their products at a loss. Stock lots of yarns are gradually being eliminated as fewer offerings are reported available of this character at low prices.

Continued strength in the wool market with firmer values has been responsible for the advanced quotations on yarns, rather than any great volume of business booked by spinners. Stocks of old wools, purchased on a lower basis are being gradually consumed, so that spinners face the situation of paying higher prices on additional lots of wool, so their quotations are figured accordingly. It is asserted there has been little or no profit in the old prices for yarns on the lower wool costs, so that with advances in these costs, yarn prices must needs be brought upon a parity. Naturally buyers are not at all favorably impressed by this development. Their buying has not been stimulated by this situation. In fact, even where they acknowledge the fundamental conditions which point to continued strength in wool, with consequently higher yarn prices, it would seem to be their policy to operate conservatively from week to week. In other words, although they may be of the opinion business conditions are promising, generally speaking, they want to be perfectly sure their own particular plant receives its share of this business before they commit themselves to purchases on this higher basis. It is this conservative element which is playing a very important part in the market to-day, and tends to restrict operations at this time.

Values Nominal Today

It is natural under such conditions that it is difficult to represent correctly actual market values. With limited sales reported, and these mostly for nearby delivery out of stocks of either spinners or another manufacturer's surplus, prices in such transactions cannot be regarded as truly indicative of market prices. They would be misleading if manufacturers would base their calculations upon such figures. On the other hand, spinners' quotations, based upon wool costs, also vary more or less with a considerable range, due to conditions with each spinner. They represent prices which a buyer would have to meet where a purchase for future delivery of size would be made. In such a sense they are more or less nominal, but they come nearer to the actual value for buyers' calculations.

For example on 2-40s Bradford spun, quotations are now around $2.40 to $2.50, although occasional small stock lots are noted picked up at $2.25 or $2.30; on 2-50s from $2.75 to $3.00 is asked, with sales noted at $2.60 for a Bradford and $2.85 for French spun for future delivery last week. With stock lots of 2-36s three-eighths at $1.95, spinners are asking $2.15 to $2.25. A quotation of $1.90 for 2-33s quarter blood by one spinner was too high as the buyer picked it up at $1.80.

Interest in Cheviots

With advances noted in prices for 2-36s three eighths and 2-40s half blood manufacturers will find it difficult to produce men's wear fabrics to meet the figure which is popularly set as a level where business could be done, namely $2.75. New prices mean a fabric costing more nearly $3.50 to $3.75. For that reason, sampling for the coming season is said to indicate an effort to bring out a lower priced fabric at about the desired level of $2.75. In addition to the usual sample business, dealers state there has been quite a little interest shown in yarns with soft twist in lower grade stocks for cheviots. Sales have also been made for this purpose with 2-20s quarter blood sold at $1.77½, while a 2-18s sold at $1.65. A sale of 2-40s mixes was made last week at $2.65, but now $2.75 is being asked for this same yarn.

Knitters Waiting

Demand for knitting yarns is not very active at the present moment. Manufacturers here again are playing a conservative policy. They are willing to pay more if they have to when they actually need the yarns, but for the present they are not in the mood to take a chance it seems. With spinners' prices advanced here also, here and there stocks bought at lower prices some time ago are being offered at lower figures, so that it is difficult to secure a uniform price basis figured on current wool costs. A spinner refused an offer at $1.40 for low quarter blood 2-24s, a sale being reported at $1.37½; 2-18s quarter blood sold out of stock at $1.55, with spinners asking $1.65 to $1.70; 2-30s sold from stocks at $1.60, with $1.75 to $1.85 quoted. Most of the call is for the medium grades, only occasional small lots of half blood yarns being sold at around $2.30 by spinners.

Quotations

(Corrected to Close of Business Wednesday)

Bradford System		French System	
2-12s to 2-16s, low com.	**1 25—1 30**	20s, quarter	1 30—1 60
2-20s to 2-24s, low ¼	1 35—1 45	20s, high quarter	1 70—1 80
2-20s to 2-26s, ¼ blood	1 50—1 60	20s, ⅜ blood	1 90—2 00
2-26s to 2-30s, ¼ blood	1 65—1 71	30s, ⅜ blood	2 00—2 10
2-30s to 2-32s, ¼ blood, S.A.	1 70—1 80	30s, ½ blood	2 20—2 35
2-32s, ¼ blood, domestic	1 85—1 90	**40s, ½ blood**	**2 35—2 45**
2-20s, ⅜ blood	1 80—1 85	50s	2 60—2 70
2-26s, ⅜ blood	1 85—1 90	**60s**	**3 00—3 10**
2-36s, ⅜ blood	1 95—2 10	**Knitting Yarns in Oil (Bradford)**	
2-32s, ½ blood	**2 15—2 20**	2-20s, low ¼ blood	1 40—1 50
2-36s, ½ blood	**2 20—2 25**	2-18s to 2-20s, ¼ blood	1 55—1 65
2-40s, ½ blood	2 35—2 45	2-26s, ¼ blood	1 60—1 70
2-50s, high ½ blood	2 55—2 60	2-30s, ¼ blood	1 70—1 80
2-50s, fine	2 70—2 80	2-20s, ⅜ blood	1 80—1 85
2-60s, fine	**3 05—3 15**	2-20s, ½ blood	2 25—2 40
		French Spun Merino, White	
		30s, 50-50	**1 75—1 80**
		30s, 60-40	1 85—1 90
		30s, 70-30	1 95—2 00
		30s, 80-20	2 05—2 10

BRADFORD TOP AND YARN CABLE

Bradford, Eng., Dec. 3 (Special Cable to TEXTILE WORLD).—Fine tops are comparatively neglected at Bradford, but very firm. 64s merino at 81d.; 56s 1d. up at 54d.; 46s carded 1d. up at 35d. Botany yarns are neglected with 2-48s at 8s. Fair amount of business in medium and low crossbred yarns, and particulars are freely forthcoming on old contracts. Crossbred spinners are better employed and those engaged on low singles for German trade are booked ahead for six and nine months.

Yarn Market Stronger

Easier To Get Better Prices On Moderate Volume

Boston.—The market for worsted yarns continues to improve and spinners find it easier to get better prices, but difficult enough to obtain actual replacement values for the sales they are making. There is, however, more confidence visible and it is demonstrated by a larger volume of yarns being taken on present relatively high level, the purchasers averaging in with their previous stocks which allows them to make a bigger yardage of fabric but at less profit to themselves. The day of actual replacement values has still to come, but each week brings the event nearer. That the heavyweight opening will show advances is very generally believed but the prices in general will not be based upon prevailing wool and top prices. The day of reckoning seems to be continually deferred, but it seems inevitable that sooner or later when the process of averaging up tops and yarns by the necessary purchasing of dearer materials comes to an end stonger values for yarns and fabrics will prevail. There is of course the possibility that wools may slump in price, but it is a possibility only according to best opinion available.

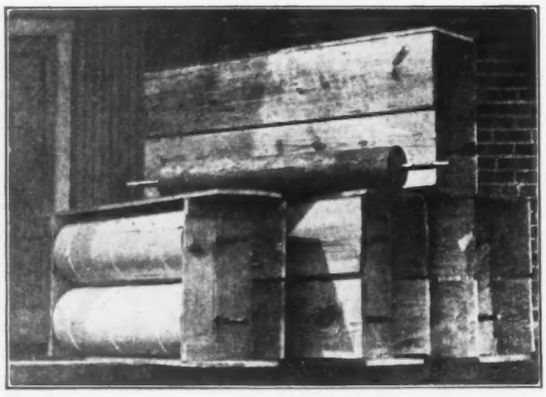
There is a better demand for warp yarns from 2-32s to 2-50s from women's wear and men's wear manufacturers. Here and there it is possible to purchase yarns for spot delivery below current market. In the case of 2-40s made from 60-64s small quantities are available at $2.35 but this is 5-10c. per pound lower than a spinner is willing to take on business involving deliveries next year.

That spinners are much busier is shown conclusively by government report for October which indicates a gain of 11.7 per cent. in worsted spindle hours for the month of October and a similar gain for combs. Wool consumption increased approximately 9,000,000 pounds. The general trend in the market is for larger business at better prices.

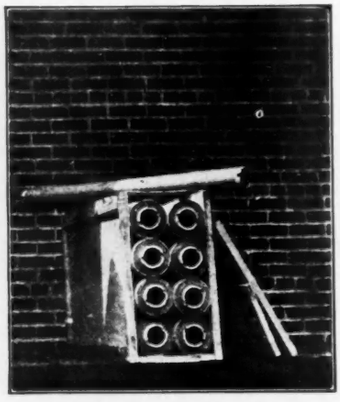
Top Market Stronger

Firmer By 2 Per Cent But Little New Business Taken

Boston.—Tops grading from high quarter blood to fine inclusive are approximately 2 per cent stronger than they were a week ago. Considerable business was placed before this additional rise took place. The situation is now approaching a deadlock, one or two of the larger combers refusing point blank to book any further business for delivery next year. The explanation is that wools are so strong and scarce that it would



THE CLUMSY SHIPMENT
HEAVY BEAMS



THE HANDY SHIPMENT
DUPLAN SHELLS

both contain the same quantity of silk

Compare the two shipments pictured above.

A simple metal-tipped paper shell, easily applied over any 2 3/4" wooden core at the loom, takes place of heavy wooden beam in shipment. Saves 30 to 60% of transportation charges—60 to 80% of packing charges. No loom beams in transit. No delay.

Our facilities and experience are at your service for winding, warping, copping, coning, and throwing of real silk or artificial silk.

COMMISSION WORK DEPARTMENT

Hazleton, Pennsylvania — 135 Madison Avenue, New York City

DUPLAN
SILK CORPORATION

Dyers and Finishers

of

Yarns, Tops, Raw Stock and Piece Goods

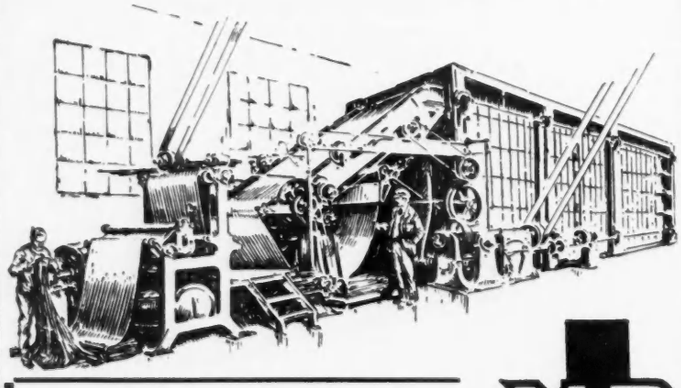
Our up-to-date plant means prompt service. The volume of our business means reasonable prices.

Founded by Mark Hough in 1884

ENTERPRISE DYE WORKS, INC.
Woonsocket, R. I.

M·RUDOLF JAHR
MASCHINENFABRIK · GERA-REUSS

Representative: PAUL EDLICH M. E. / Delawanna N. J.



THIS TENTERING AND DRYING MACHINE

with automatic feeder and automatic suction device requires only one man for attendance. Very low consumption of steam and power. Nevertheless high capacity and careful treatment of the fabric.

Worsted Yarn Markets—Continued

be bad business to adopt what would be equivalent to a short position on tops. It is said in some quarters that spinners are inquiring about tops for delivery next June, July and August around today's prices, but as the top maker would have to carry the hazard this class of inquiry gets nowhere.

The only inactive tops in the Boston market are 36s. They are quoted $1.00—$1.05 which in view of the strongly upward trend in New Zealand and Buenos Aires is not considered excessive. A little later on when the manufacturing of Astrachans and similar fabrics becomes more lively these tops will be in larger call. Crossbred tops in the Bradford market have all advanced one penny per pound for the week, while the fine qualities grading upward from 60s to 70s are unchanged.

Wool noils hold very steady, the highest price of the year being paid for choice fine domestic and Australian. Quarter blood noils are in good favor with the mills and prices are very firm. Colored noils are quiet, the fine being quoted 90-95c, ½ blood 75-78c, ⅜ blood 65-70c. Mohair noils are moving very slowly. They might even be considered on the bargain counter. Much will depend upon the turn the trade may take when the heavy-weight fabrics are shown. This opening may bring good business for mohair noils or on the other hand it may result in their being handed over to market oblivion.

There is more activity in silk noils there being a considerable demand for these materials from manufacturers of silk fibre yarns which are used in the woolen industry to brighten up the fabric, taking the place in the woolen industry of brightly colored spun silk yarns in the worsted industry. Long white silk noils are traded on a 42-50c. level while the short noils move from 27-30c. Long Tussah noils are quoted 42-45c. and short Tussah 22-25c. Camel-hair noils are quoted from $1.00 for low to $1.60 for re-combed. Choice alpaca noils sell from 75-80c. with medium qualities as low as 65c. Artificial silk noils are quoted 48-50c. Re-combed mohair noils 95-$1.10; single-combing 85-90c.; single medium 75-80c.

Current Quotations
(Top prices are nominal)

	Tops	Noils
Fine	$1.95–2.00	118–123c.
Half-blood	1.80–1.85	112–115c.
High ⅝ blood	1.58–1.60	100–105c.
Aver. ⅝ blood	1.52–1.55	95– 95c.
Low ⅝ blood	1.38–1.40	85– 90c.
High ¼ blood	1.33–1.35	80– 85c.
46s	1.25–1.26	75– 80c.
44s	1.10–1.15	70– 75c.
40s	1.05–1.07	65– 70c.
36s	1.00–1.05	65– 70c.

SILK YARNS

Increasing Product of Artificial Silk

Shortage Now Beginning to be Noted in A Quality—Prices Are to Be Maintained

Demand for artificial silk was as active as ever last week with the shortage now beginning to be noted in the A quality. The scarcity of the B & C grades has long been a topic of conversation, but the A grade seemed to be in ample supply. Now according to a number of sellers the A grade is getting scarce.

Hosiery mills were active buyers last week. They were interested in deliveries through the first three months of the coming year and were booking large quantities in the 150 Denier and some of the finer counts. Hosiery business has been coming in at a good rate and the improvement is expected to go further. Mills in the Philadelphia district are understood to be running at capacity on the silk and artificial silk numbers with several planning on running night shifts. Manufacturers of cotton and artificial silk fancies were also taking large quantities. These novelties have come in big in the last year or so with stores reporting large sales for draperies, etc.

According to a representative of the Viscose Co. no advance in prices is being contemplated during the first quarter of 1925. As this company is the largest producer in the field it is probable that the others will follow suit. The larger companies are rushing to completion additional units to take care of demand. Recent announcement of the Dupont that it will erect a second unit of its plant near Nashville, indicates that sellers expect no decrease in interest even after the current spring season is through. The American Cellulose & Chemical Mfg. Co. will soon have its new producing plant in this country running full to supplement its imports of Celanese from abroad.

Prices are unchanged as follows:

	A Quality unbl'ched	B Quality unbl'ched	C Quality unbl'ched
60 Denier...	$3.40	$3.15	....
70 Denier...	3.25	3.05	....
80 Denier...	3.10	2.90	....
90 Denier...	3.00	2.75	....
100 Denier...	2.90	2.40–2.50	$2.20
120 Denier...	2.45	2.25	1.95
130 Denier...	2.25	2.00–2.05	1.75
150 Denier...	2.00	1.80	1.50
300 Denier...	1.75	1.60	1.45

Combination yarn prices unchanged:

80 Denier cellulose

3 ends 13/15 double extra A raw silk.	$4.75
4 ends 13/15 double extra A raw silk.	4.95
5 ends 13/15 double extra A raw silk.	5.10

150 Denier cellulose

1 end 13/15 double extra A raw silk.	$3.00
2 ends 13/15 double extra A raw silk.	3.35
3 ends 13/15 double extra A raw silk.	3.55

Spun Silk Higher

Good Demand and Higher Waste Costs Force Further Advances

Spun silk prices were very firm last week and in several cases producers

Pocasset Worsted Company, Inc.

Worsted Yarns

Office and Mills Thornton, R. I.

WORSTED YARNS
GRAY AND FANCY SHADES
BRADFORD STEEL SYSTEM
TWISTS AND MIXTURES
WEAVING-KNITTING

WARNER J. STEEL
Successor to EDWARD T. STEEL & CO.
Mills and Office BRISTOL, PA.

Woolen and Merino Yarns

WEAVING KNITTING

Manufacturers Since 1864
JONATHAN RING & SON, Inc.
PHILADELPHIA, PA.

MOHAIR WORSTED WOOLEN
MERINO AND SPUN SILK
YARNS
OF EVERY DESCRIPTION
PERCY A. LEGGE, PHILADELPHIA BOSTON CHICAGO

ART SILK
TOPS and NOILS
Recognized as the standard by Spinners of Quality
S. FEATHER CO.
110-16 Erie St., Camden, N. J.

WORSTED AND MERINO
JD FRENCH SPUN YARNS
FOR KNITTING AND WEAVING
Manufactured by
JULES DESURMONT WORSTED CO.
WOONSOCKET, R.I.
PHILADELPHIA PROVIDENCE BOSTON
THOMAS H. BALL
SELLING AGENT
NEW YORK MILWAUKEE CLEVELAND

2-50s—60s and 70s French Spun
WOOL CREPE YARNS
From stock in New York and for future deliveries
Neuburger & Co., Inc.
Established 1866
124 FIFTH AVENUE, NEW YORK
Sole United States Selling Agents for
Schachenmayr Mann & Co., Salach, Germany
Kammgarn Spinnerei, Bietigheim, Germany
Textilwerke C. G. Schoen, A. G. Sosnowiec, Poland

FRIEDBERGER - AARON MFG. CO.
Recognized as the Leading Manufacturers of
BRAIDS, EDGINGS, TUBING
for trimming knit underwear
MILLS: WAYNE JUNCTION, PHILA.
Post Office Address: Logan Station, Philadelphia

We Specialize in
ARTIFICIAL SILK
TOPS, NOILS & CARDED WASTE
Colored or white threads carded or combed as required on commission. Samples mailed on request. Phone 4511 Passaic.
GARTH MFG. CO.
72 Summer St., Passaic, N. J.

TAPES, BRAIDS AND BINDINGS
"LION BRAND"
NARROW WOVEN FABRICS
HOFFMAN CORR MFG. CO.
312 Market St. SPINNING TAPES AND SPINDLE BANDING Philadelphia, Pa.

WILLIAM RYLE & CO.
381 Fourth Ave. New York
Cor. 27th Street
Thrown Silk Yarns
For Silk, Woolen Worsted Cotton and Knitting Mills

Royersford Needle Works
INC.
the largest manufacturers of
Spring-Beard Needles, Sinkers, Dividers, etc.
for
Knitting Machinery
Our Needles are guaranteed the Best.
730 Walnut Street Royersford, Pa.
Ferdinand Heller, Treas.

WEIMAR BROTHERS
Manufacturers of
TAPES, BINDINGS AND NARROW FABRICS
2046-48 Amber Street, Philadelphia

PROMPT SERVICE
RIGHT PRICES
BONE DRY
HOSIERY FINISHING BOARDS
THAT WORK ABSOLUTELY SMOOTH
Jos. T. Pearson & Sons Co.
1825 E Boston Ave. Philadelphia, Pa.

Rockwell Woolen Co.
Leominster, Mass.
Manufacturers of
WOOLEN and MERINO YARNS
FOR WEAVING and KNITTING
Heather a Specialty Mixtures and Decorative Yarns

SPINNING TAPE
HOPE WEBBING CO., PROVIDENCE
NEW YORK TROY CHICAGO

AMTEX TRADE MARK REGISTERED
Spinning and Twisting Tapes and Double Loop Bands
AMERICAN TEXTILE BANDING CO., Inc., Germantown, Philadelphia

Star Worsted Company
YARNS
FITCHBURG MASS.

O. J. CARON
WORSTED AND WORSTED MERINO YARNS
166 W. JACKSON BLVD., CHICAGO

WM. H. RICHARDSON
QUALITY WORSTED YARNS

JOS. M. ADAMS COMPANY
Manayunk, Philadelphia, Pa.
Spinners of
WORSTED YARNS
(Bradford System)
for Weavers and Knitters

Thread and Silk SPOOLS of any Description
Made from one piece, up to 6" long and 3" dia. We are located in the best white birch region. Our work and prices seem to satisfy the most particular customers. We can give any finish desired. Estimates furnished on samples submitted.
E. L. Tebbets Spool Company, Locke's Mills, Maine

L. T. IVES CO.
Established 1874 Manufacturers of all kinds of
Spring Knitting Needles
Slides, Sinkers, Jacks, Etc.
NEW BRUNSWICK, N. J.

MACUNGIE SILK COMPANY
Macungie, Pa.
For binding Cotton and Woolen Bed Blankets.
Bindings and Ribbon
Go-Cart Covers, Kimonas, Bath Robes, etc.
Special Colors or Shades made to order.

Silk Yarns—Continued

advanced them slightly. The ply yarns came in for another rise and the singles were also higher. Active demand from the broadsilk trade has, of course, been the chief factor behind the strength of the market. Another factor though is now coming to the fore and that is higher waste silk costs. These have gone up rather sharply in the last few weeks. Domestic waste has been high right along but of late the foreign markets, particularly Canton, have taken a sharp rise. Prices are as follows:

30-2	$6.05	30-2	$5.30
50-2	5.80	20-2	2.05
40-2	5.55	60-1	4.60

Thrown Silk Steady

Broadsilk Buying Drops Off, but Hosiery Revives

Broadsilk buying fell off slightly last week although a number of dealers reported continued sales of the crepe yarns. Manufacturers seem to be pretty well covered by now for December, however, and it will be another week in the opinion of sellers before they will begin to consider January and February needs. Some feel that a small reaction in prices will be noted in the next ten days and for this reason are holding off. At the same time some of the slackening in broadsilk interest was made up by a better demand from the hosiery mills who are beginning to note a much improved demand for their products. Some fairly large sales were reported where the seller was willing to discount a small further decline in raw silks.

Prices are as follows:

60 days basis

Japan Organzine, 2 thd XXA in skeins	$7 70
Japan Tram, 4 thd in skeins	7 05
Japan Tram, 5 thd on cones	6 95
Japan Crepe, 3 and 4 thd on bobbins 65 turns	7 60
Japan Crepe, 2 thd XXA on bobbins 70 turns	8 10
Canton Crepe, 14/16 3 and 4 thd on bobbins	7 20

Staple Cottons Stronger

(*Continued from page* 155)

against type samples of leading shippers. Sak. has advanced 1¼ to 1¾c. or to a basis of 50¼ to 50¾c. for medium grades suitable for the tire trade. Uppers in the meantime have declined approximately 100 points for the options, but prices for prompt shipment are off only ½c.

Current Quotations

Average prices for December-January shipments of middling and strict middling hard western cotton (full-lengths) are as follows:

1 1/16 in.	26¼to26¾c.	26⅝to27⅜c.
1 1/16 to 1⅛ in.	26⅜to27¼c.	27¼to28¼c.
1 ⅛ in.	27½to28½c.	28¼to29½c.
1 3/16 in.	30 to31c.	31 to32c.
1 ¼ in.	35 to37c.	37 to39c.

John Malloch & Co., Boston, quotes cotton for Dec.-Jan. shipments, Egyptian, c. i. f. Boston as follows: Medium Sakelarides 50 9/16c., up 1 9/16c., from Nov. 26; Medium Uppers, 33½c., off ½c. They report closing prices Dec. 3 on the Alexandria exchange as follows: Jan. (Sak.) $46.95, up 102, points from Nov. 26; Dec. (Uppers) $29.17 off 108 points.

New Publications

Books reviewed in this column may be obtained from the Bragdon, Lord & Nagle Co., 334 Fourth Ave., New York City.

AIR CONDITIONING IN TEXTILE MILLS: Edited by Albert W. Thompson: 500 pages, 5 by 8 in.; illustrated; Parks-Cramer Co., Fitchburg, Mass.; Price $5.00.

The reviewer can skip the usual formality of introducing the author of a new book to his readers, for Mr. Thompson is well known to the larger part of the textile industry as an authority on air conditioning. In fact, the bare announcement at the head of this review is all that would be required to inform most of the textile trade that the need for a complete, authoritative book on humidification, based on sound theory and wide mill experience, had at last been filled.

In his preface the author (or editor, as he modestly styles himself), mentions the difficulties that a textile manufacturer finds in attempting to master the theory and technical details of a subject which contains so much of abstruse physics as are involved in air conditioning and humidification. This statement indicates the general purpose of the book. It presents full information for the textile man in an understandable way, and gives definite recommendations for humidifying practice in textile manufacturing. These specific recommendations are not limited to cotton mills, in which the art of air conditioning has made its greatest advance, but cover as well wool and worsted mills, silk mills, knitting mills, jute, hemp and flax mills. A complete description of modern methods and apparatus is included as this is necessary to a proper practical understanding of the subject.

Acknowledgement is made of the assistance received from Prof. Edgar H. Barker of the Lowell Textile School; William D. Hartshorne; George B. Haven; James Chittick; D. E. Douty and E. D. Walen; also from the National Association of Cotton Manufacturers; National Association of Wool Manufacturers; A. S. M. E.; United States Bureau of Standards; and other organizations.

The book is divided into thirteen chapters as follows: The Textile Fibres and Some of Their Peculiar Properties; How Humidity Affects Processing; Favorable Conditions for Cotton Manufacture; Favorable Condition for Woolen and Worsted Manufacture; Favorable Conditions for Silk Manufacture; Favorable Conditions for the Manufacture of Jute, Hemp and Flax; Regain, and What it Means to Manufacturers; Principles and Characteristics of Modern Humidifiers; Discussion of Methods and Capacities; Control of Condition,—Automatic Regulators and Their Possibilities; Fundamental Laws, Principles and Definitions; How Health is Affected by Atmospheric Conditions; and Weather and How it Affects the Factory Atmosphere.

An appendix includes numerous charts and tables, and gives easily remembered relations between temperature, relative humidity and regain, while an index has been arranged to encourage and facilitate reference. Illustrations are freely used.

A. P. Villa & Bros., Inc.

YOKOHAMA CANTON SHANGHAI
MILAN TURIN LYONS

Raw, Thrown and Dyed Silks

Silk on Quills or Beams
Hosiery Silk on Cones

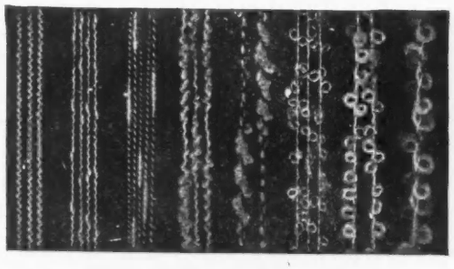
Crepes and Hosiery Tram
a Specialty

95 Madison Avenue, New York

Telephone: Madison Square 3200

MILLS:

Passaic, N. J. Netcong, N. J. Mifflinburg, Pa.
Turbotville, Pa. Erwin, Tenn.



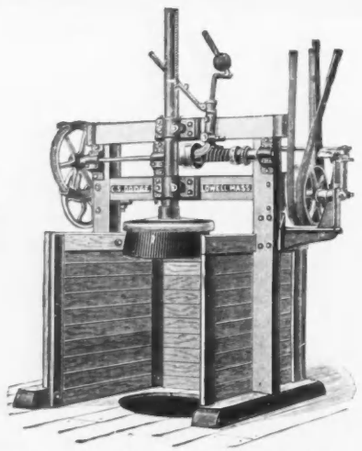
TOULSON YARN CO., INC.
Bridgeport, Conn.

Novelty Yarns
of Every Description

SELLING AGENTS **N. B. KNEASS BROOKS** BOSTON NEW YORK and PHILADELPHIA

Mohair and Worsted
LOOP and NOVELTY YARNS
Massachusetts Mohair Plush Co.
200 DEVONSHIRE ST., BOSTON, MASS.
Mills at Lowell, Mass.

Get 20 to 40 lbs. More Wool Into Your Bags



You will be surprised at the savings you can make in bags, storage, cartage and freight. The

Dodge Wool-Bagging Machine

will easily enable you to get 20 to 40 lbs. more stock into each bag. This method of bagging is also much quicker than by hand.

The machine is entirely automatic and requires no watching. It is quickly adjusted to the desired pressure and exerts the same pressure on all bags, making them all absolutely uniform in weight when filled.

Install a Dodge Wool-Bagger on trial. We'll leave the machine to sell itself.

FOLDER ON REQUEST

Pickers, Bagging Machines and Picker Pins. Cylinder Coverings a Specialty.

High Carbon Steel Wire Drawn to Order.

C. S. DODGE - LOWELL, MASS.

Canadian Agent: W. J. Westaway Co., Ltd., Hamilton, Ont. or Montreal, Que.

LOGEMANN

Hand-Belt-Electric-Hydraulic

Baling — Presses

From year to year, hundreds of new names are added to the list of LOGEMANN baling-press users in the textile field.

Every year, repeat orders from users of LOGEMANN baling-presses increase steadily, denoting the satisfaction derived from this equipment.

But—

Until every mill-owner, superintendent, and operator, is familiar with the LOGEMANN line of balers for yarn, waste and finished goods, our advertising has not accomplished its purpose.

We solicit your inquiries.

LOGEMANN BROTHERS CO.

MAIN OFFICE & WORKS

3100 Burleigh St., Milwaukee, Wis.

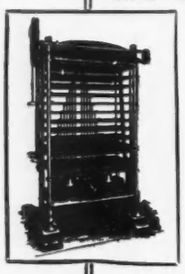
Philadelphia Wool Scouring and Carbonizing Co.

WOOL

Scoured and Carbonized

Freight Address: Coral St. Sta., P. & R. R. R. Somerset and Trenton Ave., Phila. Pa.

The FINISH is All Important on a Buyer's Market



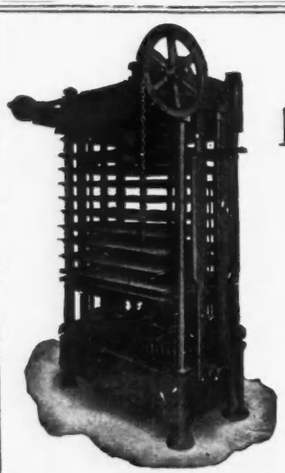
The only method known that will guarantee a permanent finish is the use of

STEAM PLATE PRESSES

It is obtained by extreme heat under pressure, followed by cooling the goods while the pressure is still on. This sets the finish and MAKES IT LAST.

Send for Catalogue

Nashua Steam Press & Boiler Works, Nashua, N. H.
Successors to Spence & Rideout



RELIANCE Hot Plate Press

For Hosiery and Underwear Trade

For price and particulars address

Reliance Machine Works
Hedge and Plum Sts.
FRANKFORD, PHILA., PA.

EAVENSON & LEVERING CO.

Scouring AND Carbonizing } *of* { WOOL AND NOILS

The Standard of Workmanship

Storage and Forwarding

CAMDEN, NEW JERSEY

Philadelphia and Reading Railway Sidings

CHICAGO WOOL COMPANY

SCOURED WOOL

200 Summer Street - Boston
18 W. Austin Avenue - Chicago
140 S. Front Street - Philadelphia

Card Stamping and Repeating

FOR ALL TEXTILE FABRICS

Repeating for Throw Overs for Fine and French Index

Walter W. Hodgson, Inc.
315-17 W. Lehigh Ave PHILADELPHIA

Do you read the Textile Clearing House every week?

WOOL MARKETS

High Prices and Limited Stocks

Wool Trade Coming To End of Year With Bare Boards—Limited Foreign Purchases

BOSTON.—The wool market is little different from a week ago except that fleece wools are up 1c. a pound with medium qualities running close to fine on grease prices. Scarcity makes high prices and that is the situation in brief. There is plenty of cheap money but no cheap wool and further contracting on the sheep's back is in limited volume only, owing to bullish views of the growers. Wool growers are inclined to ask higher prices and wool men do not feel that they can make contracting for next year too much of a hazard. Growers however are going to get the benefit of the strong situation in wool, of that there can be little doubt. A leading merchant states that in his opinion the wool trade inventory at the end of this year will show smallest stocks of wool on the street for years. Some 700,000 lbs. of Idaho wool held by a well known pool was sold in Oregon recently at around 50c. The price was high but not out of line with the ruling market.

That wools have had a considerable rise in price this year is indisputable, but it seems hardly fair to base the advance from the period of depression in July when wools and their semi-manufactured products were at the low point of the year and manufacturing was easing up very considerably. During the first three months of the year manufacturers were quite busy and wool prices held firm over a period of from three to four months. To take an example, Ohio ⅜ and ¼ blood wool sold at 54c. for the first four months of the year but fell to a low average of 47c. in July rising to 62c. for November. The rise in wool from the early part of the year was therefore about 15% but if taken from the point of depression in July is about 32%.

The wool trade is beginning to wonder what will happen if the heavyweight manufacturing season, now so close at hand, should make anything like a normal demand for wool. This season usually takes about twice as much wool as the lightweight season and if reports are to be credited there never was a time when the wool lofts of Summer Street were so bare.

Foreign markets are all holding up strongly. Although the Australian season is rapidly coming to an end, so far as offerings for this year are concerned, American buying chiefly for mill account has not exceeded 15,000,000 pounds it is said. France and Germany are buying heavily in all foreign markets. With their depreciated currencies this might seem rather difficult to understand; but while a depreciated currency is a hindrance in the purchase of raw materials it is a tremendous help to export business.

Receipts and Shipments

Receipts of wool in lbs. for the week up to last Wednesday follow.

	1924	1923
Domestic	2,857,500	6,116,500
Foreign	4,210,900	1,295,800
Total	7,068,400	7,412,300

Receipts of wool in lbs., since Jan. 1, 1924, with comparisons, follow:

	1924	1923
Domestic	184,605,500	134,192,500
Foreign	109,353,800	267,992,200
Total	293,959,300	402,184,700

Shipments of wool for the week ending and including Dec. 3 follow:

Boston & Maine	1,639,000
Mystic	
By Sea	178,000
Boston & Albany	658,000
New Haven	1,945,000
Total	4,420,000
Shipments during previous week	2,712,000
Shipments same week last year	2,937,000
Shipments thus far for 1924	158,874,000
Shipments similar date 1924	139,827,000

BRITISH WOOL CABLE

Bradford, Eng., Dec. 3 (Special Cable to TEXTILE WORLD).—Competition for wool continues very keen in London. Crossbreds show hardening tendency and are occasionally dearer than at opening. Short and faulty merinos show a little irregularity.

English wools are making higher prices, and some American orders noted. Bradford market more reconciled to advance and fair amount of covering in crossbreds of 50s quality and below.

Wool Rise Continues

Trading is Less Active—Fleece Wools Strong

PHILADELPHIA.—There has been no material change in the status of the local market. Trading is not active because of the small amounts remaining in dealers' hands. Those owning medium wools of good quality are in position to demand highest prices when a manufacturer needs such grades immediately. On the other hand where manufacturers have sufficient stocks on hand to cover their orders with possibly a small quantity in reserve, they refuse to make further commitments at current prices. Quarter blood fleece wools have sold up to 66½c. this week, while an offer of 67c. on a lot of quarter Indiana was refused. Additional supplies are difficult to find and more attention is being given to foreign markets.

Trading in fleece wools is more active than in territory because of the absence of large stocks of the latter. In fleece grades similar to Ohio, quotations average 67c. for all grades from fine delaine down to quarter, although several dealers ask two or three cents higher, one quoting quarter blood at 68c. and three-eighths at 70c. No sales have been reported, however, at these prices. Scoured figures in last sales of best fleece wools average $1.67 for fine delaine, $1.40 for half bood, $1.28 for three-eighths and $1.15 for quarter. Dealers have paid as high as 66c. for three-eighths this week.

Pulled Wools Inactive

Sales of small to medium sized lots of Idaho and Wyoming wools have been made on a basis of $1.58 clean for fine staple, $1.40 for half blood, $1.30 for three-eighths and $1.18 for quarter blood. Limited interest from mill buyers is also noted in pulled wools. These mills have purchased extensively during the past two months and a temporary lull is a natural reaction. Demand is now spotty while prices continue to trend upward. Several dealers report sales of best AA wools at better than $1.60, which is possible where a manufacturer who needs wool is located. A large quantity of gray B super was reported sold at $1.22.

Quotations

(Corrected at Close of Business Wednesday)

Ohio, Pennsylvania and West Virginia

Fine delaine	67—68
Fine clothing	55—57
½ blood	66—67
⅜ blood	66—67
¼ blood	66—67

Michigan and New York

Fine delaine	65—66
Fine clothing	53—54
½ blood	64—65
¼ to ⅜	64—66

Indiana, Missouri and Similar

½ blood	63—65
⅜ blood	63—65
¼ blood	62—64
Common	50—53

California (Scoured Basis.)

Northern, 12mo.	1.50—1.55
Sp'g middle counties	1.33—1.38
Southern, 12 mo.	1.18—1.23
Fall free	1.22—1.25
Fall defects	1.10—1.15
Carbonized	1.25—1.30

Texas (Scoured Basis.)

Fine 12mo.	1.52—1.58
Fine 8mo.	1.40—1.45
Fine Fall	1.35—1.40

Pulled—Eastern (Scoured Basis.)

A.A.	1.55—1.65
A Super	1.45—1.55
B-Super	1.22—1.32
C-Super	95—1.00
C'bgs fine	1.40—1.45
Medium B	1.30—1.35
Medium C	90—1.00

Montana, Idaho and Wyoming (Scoured Basis.)

Staple fine	1.58—1.62
Do. ½ bld.	1.40—1.45
Fine & fine medium clothing	1.38—1.41
⅜ blood	1.25—1.30
¼ blood	1.15—1.20

Utah

Fine	1.48—1.52
Fine medium	1.35—1.40

Colorado and New Mexico

Fine	1.48—1.52
⅜ blood	1.18—1.23
½ blood	1.32—1.40

Nevada (Scoured Basis.)

Fine	1.48—1.52
Fine clothing	1.30—1.34

Mohair Domestic

Best combing	82—87
Best carding	72—77

Foreign (In Bond)

Turkey	45—50
Cape	35—45

Foreign Clothing and Combing (In Bond.)

Scoured Basis—Cape:	
Super 12 months'	1.52—1.55
Super 10-12 months	1.44—1.49
Australian:	
70s	1.58—1.63
64s	1.50—1.52
58—60s	1.32—1.35
Grease Basis: Montevideo:	
58—60s	70—72
56s	65—66
50s	59—61
Buenos Aires:	
46s	48—50
40s	44—47

Foreign—Carpet (Grease Basis—In Bond.)

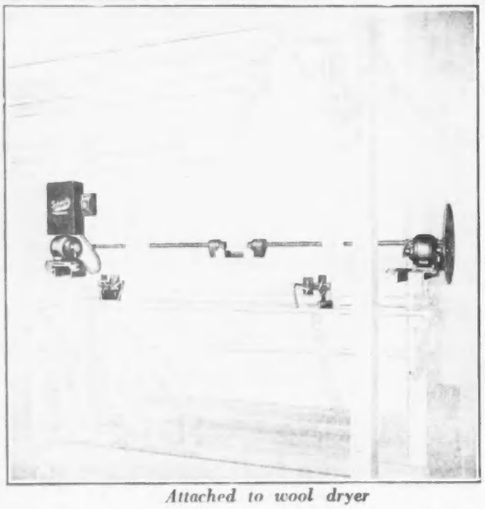
Aleppo: Washed	40—42
Angora	24—25
Awassi: Washed	39—42
Karadi: Washed	38—40
China: Combing	32—33
No. 1 W'ld, ball	48—50
W'l'd, filling	30—32
Szechuen ass't	29—31
Cordova	29—31
Khorassan: White, 1st clip	30—31
2nd clip	22—23
Mongolian: Urga	33—35
Manchurian	27—29
Black Face	28—29
Servian skin wool	33—35
East India: Kandahar	40—42
Vickan'r	62—72
Joria	68—78

Wool Trade Notes

A new company has been formed, trading under the name, M. L. Worthington & Co., Inc., wool merchants. They are located at 39 S. Front street, Philadelphia, where attractive quarters have been arranged, M. L. Worthington, president, and E. S. Werntz, secretary were formerly with Hugh T. Smith & Co., Inc., 121 S. Front street, and Stephen J. E. Bolger, treasurer, was formerly with Frank R. Baltz & Co., Inc., Front and Chestnut streets.

The National Wool Warehouse & Storage Co. with offices at 214 Summer Street, Boston, is in the process of orderly liquidation the company disposing of its wool stock in this city and not operating in the west for the acquisition of new clip wools. It is said that the place previously occupied in the wool world by this well known concern will be taken by an organization to be known as the National Wool Exchange composed of western wool growers, live stock owners and bankers with headquarters in Helena. The local office has no information to disclose regarding the new organization.

E. Y. Neill & Co., wool importers, have removed from 263 Summer Street, Boston, to more commodious and convienent premises at 232 Summer Street.



Eliminate uneven widths!

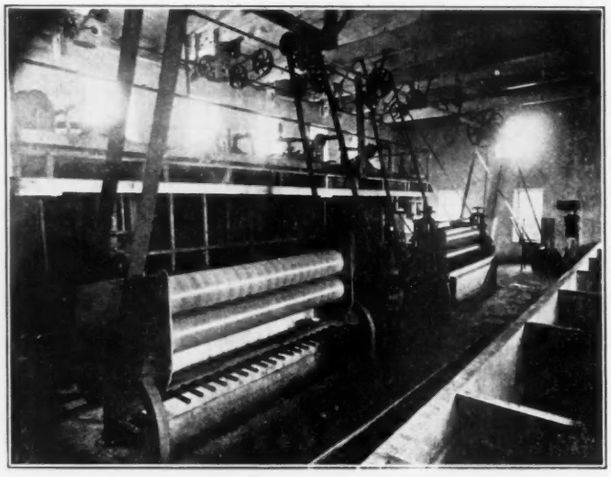
Attached to wool dryer

More even stretch, increased production and less labor expense follow the use of the Schwartz Automatic Electric Guider for cotton tenters and wool dryers. This guider handles cloth of any kind, weight or width. Extremely simple, it requires practically no attention.
The cloth runs as freely as in the case of hand feeding. It is the only guider known for velvets, plushes and other delicate-faced fabrics.

Write for further details

The Schwartz AUTOMATIC ELECTRIC GUIDER (patented)

BLAKE ELECTRIC MFG. CO.
255 Atlantic Ave.,
Boston, Mass.



BLEACHERY WASHERS

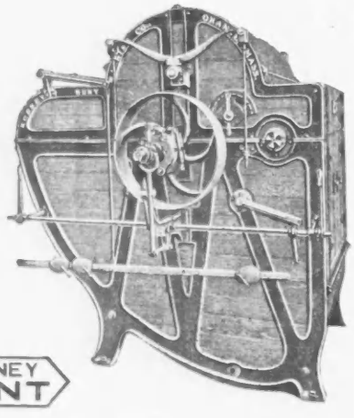
Rubber rolls—reinforced concrete water boxes — self-oiling bearings — friction clutch drive—minimum power—long life

FINISHING MACHINES, INC.

Builders of Textile Finishing Machinery

304 Pearl St., Providence, R. I.

RODNEY HUNT MACHINE COMPANY



RODNEY HUNT

Type "M" Fulling Mill

Patented

Flangeless Rolls

Eliminate Trap Tears

Booklet 1223

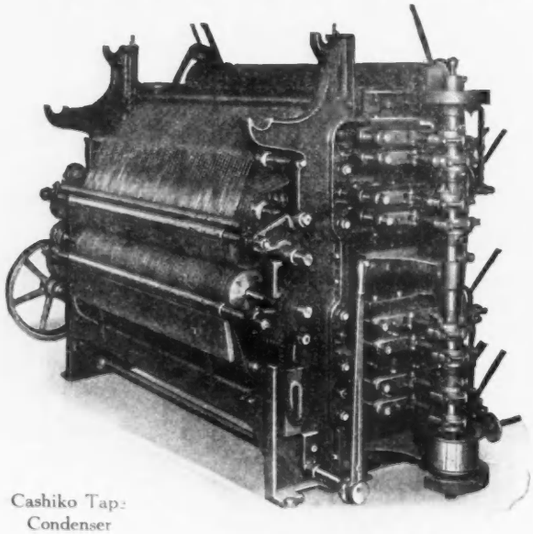
RODNEY HUNT MACHINE CO.

66 Mill Street Orange, Mass.

RODNEY HUNT

CASHIKO

TAPE CONDENSERS
COMPLETE SETS WOOLEN CARDS



Cashiko Tape Condenser

Increases Production, Improves Quality
Applied to All Makes of Woolen Cards

Details Supplied Upon Request

CASHIKO MACHINE COMPANY
Office and Works: 85 Foster St., Worcester, Mass.

Rags, Substitutes and Waste

Substitutes Helped By Wool Shortage

Rags and Fibres Are Moving Upward—Appreciation in Softs Larger Than in Wool

Recovered wools are in good demand but there is some irregularity in the industry as a whole. The full measure of success in the manufacturing of fibres depends more and more upon the cost of the raw material and where manufacturers are well financed and able to pick up rags when offered cheaply, regardless of the stocks they themselves are holding, such manufacturers can make good profits under any conditions.

Rags and fibre are likely to be in larger demand. The wool situation is beginning to look quite serious with the heavy-weight season approaching, and the wool stocks of the United States smaller than they have been for years. American manufacturers are buying in foreign markets at extreme prices all of which goes to show that the recovered wool industry has little to fear and may cherish reasonable anticipation of very good business for some time to come. Rags have taken another upward surge. Mixed softs last week were operated in on at 15-15½c. basis and cloth is around 4c. and displaying an upward tendency. Graded materials that have been lagging behind the general market are being taken in hand and lifted to a better level. Green serge has been neglected for weeks selling altogether out of level with all other serges. It is now quoted 14½c. and will probably sell higher. Black serge is established around 9c.

The rag market is still optimistic. There seems to be a shortage both of mixed and graded material. Only a shortage of mixed softs could justify the present high price of 15c. as compared with 5c. or a little better in 1914. This advance of almost 200 per cent is something to be reckoned with, being larger than that made by Ohio wools which at the present time are approximately 160 per cent above 1914 level. Either softs have got to come down or graded materials will move higher. This latter supposition is not unlikely as recovered fibres are still about the cheapest kind of waste wool material available for wool manufacturing.

Colored mill wastes are still a long way from normal parity with white materials. At no time have they been in large abundance and the demand has been very slow all through the year. The heavyweight season may be expected to bring about an expansion of business for these intrinsically valuable if colored materials.

All kinds of white softs wastes are in strong demand. Lap waste is very high-priced the drawing lap selling near the price of clean fine wool, or around $1.55 per pound. A large parcel, some 23,000 pounds of spinners' lap waste, was sold recently at $1.48 and a smaller portion of threaded ring waste was sold at the same price.

Quotations

(Corrected at close of business Wednesday)

Wool Waste

Lap—	
Fine White	$1.45—$1.55
Fine Colored	1.20— 1.25
Medium Colored	.65— .70
Ring—	
Fine Australian	1.45— 1.50
Fine Domestic	1.35— 1.40
Thread White Worsted—	
Fine	1.08— 1.12
½ Blood	.98— 1.00
⅜ Blood	.80— .85
¼ Blood	.68— .73
Low	.43— .47
Thread Colored Worsted—	
Fine	.48— .52
½ Blood	.38— .42
⅜ Blood	.37— .40
¼ Blood	.33— .35
Low	.27— .30
Carpet	.23— .25
Card—	
Fine White	.75— .80
Medium White	.45— .50
Fine Colored	.20— .22
Medium Colored	.10— .12

Reworked Wool

	Cents per lb.
Serges—	
Blue	28—29
Brown	33—34
Green	32—33
Red	35—36
Black	24—26
Knits—	
White	70—72
Red	52—55
Brown	39—40
Merinos—	
Fine light	51—52
Fine dark	22—23
Coarse light	25—26
Worsted Skirted—	
Light	32—33
Blue	28—32
Dark	23—24
Brown	27—28

Men's Wear Clips

Worsted—	
Dark	19—20
Light	28—29
Brown	23—24
Blue	33—34
Black	30—31

Flannels

Blue	14—15
Black	13—14
Green	14—15
Light	19—20
Tan	22—24
Scarlet	22—24

Women's Wear Clips

Serges—	
White	53—56
Blue	28—29
Black	27—28
Brown	30—32
Green	30—31
Light	24—25
Tan	12—33

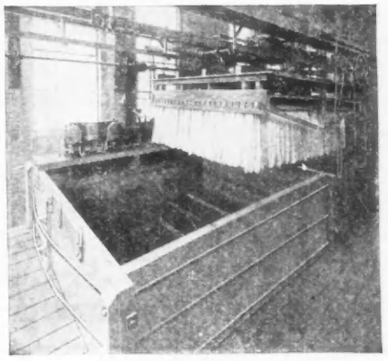
Old Woolen Rags

Merinos—	
Coarse light	11 —12
Fine light	23 —24
Coarse dark	6 — 6½
Fine dark	8 — 9
Serges—	
Light	16 —17
Brown	16 —17
Blue	11½—12½
Black	8½— 9½
Red	19 —20
Green	14 —15
Knit—	
White	53 —55
Black	14 —15
Red	33 —34
Brown	20 —21
Light	23 —24

Skirted Cloths

Skirted Worsted—	
Light	9 — 9½
Black	8 — 8½
Blue	8 — 8½
Dark	6 — 6½

DOBBINS
SOAP MFG. COMPANY
PHILADELPHIA
For Over Half a Century Makers of High Grade Soaps and Scouring Materials for Textile Manufacturers


(Patented)

Cotton, Wool and Worsted Skein Dyeing

Machines for 600lb. to 1,000lb. batches.

Driven by split clutches or motors and silent chains, running in oil, with electric push button control.

With these our standard for uniformity in dyeing is fully maintained.

Patentees and Sole Manufacturers:
HUSSONG DYEING MACHINE CO.
Groveville New Jersey

ALL STEEL ECONOMY FIRE PROOF
BALING PRESSES
ALL SIZES FOR ALL PURPOSES
LARGEST LINE BUILT IN U.S.A.
ECONOMY BALER CO. DEPT. J. ANN ARBOR, MICH. U.S.A.

M. Salter & Sons
WOOLEN RAGS
Graded to suit requirements
Chelsea, Mass.

GORDON BROTHERS, INC.
HAZARDVILLE, CONN.
Reworked Wool, Wool Waste
Custom Carbonizing by Dry Process

FRANKEL BROS. & CO.
42-48 Commercial St., Rochester, N. Y.
OUR SPECIALTY: We grade new woolen clippings ready for the picker. Write for samples and prices. Correspondence solicited.

TEXTILE MACHINERY MILL SUPPLIES
EGYPTIAN COTTON
Atkinson, Haserick & Company
BOSTON, MASS., BRADFORD, ENG.
Philadelphia-Commercial Trust Bldg.

French TEASELS
JACOB N. CHESTER
109 Broad Street New York

Elliot Cloth Folder and Measurer
FOR PRINT WORKS GINGHAM AND COTTON MILLS, BLEACHERIES, ETC., ETC.
Send for Circular
Manufactured by
ELLIOT & HALL, 54¼ Hermon St. Worcester, Mass.

BANNON'S BLEACHER'S BLUE

W. H. BANNON & CO.
PROVIDENCE, R. I.

NATIONAL
Solantine Red 8BLN

A fast, level-dyeing direct red.

Its good fastness to light and the fact that it is one of the fastest to washing of all reds of this type, recommend National Solantine Red 8 B L N for the dyeing of cotton for tapestries and similar materials. It yields bright shades of pink and red which are readily discharged with hydrosulfite. In the dyeing of cotton-backed satins, the silk is left unstained.

Test the superior fastness properties of this dye on your materials.

National Aniline & Chemical Company, Inc.

40 Rector Street, New York, N. Y.

Boston Philadelphia San Francisco
Providence Chicago Montreal
Hartford Charlotte Toronto

NATIONAL DYES
FOR COTTON

"MODERN"

"Any given operation in a textile plant is efficient only when the results desired are produced at a minimum cost in time labor and expense."

Many important results in better color, softer texture and finer appearance to fabrics are being obtained in hundreds of mills because their operators fully realize the benefits which follows the use of the

Wyandotte Textile Alkalies

These special alkalies achieve quality results because they are made for definite purposes. It is not surprising then that the unusual work they accomplish is realized at an economical cost.

Ask your supply man.

The
J. B. FORD CO.
Sole Manufacturers
Wyandotte, Mich.

DYESTUFFS AND CHEMICALS

Joint Chemical Meeting

To Feature Exposition in New York Next Fall

A joint meeting of close to 20 technical and commercial associations, to be held in conjunction with the Tenth Exposition of Chemical Industries during the week of Sept. 28 to Oct. 3, 1925, at the Grand Central Palace, New York, is being planned It is expected that a program of common interest to members of all the associations will be worked out and that the big joint meeting will follow individual meetings of the various associations in New York during the week of the exposition. Of course, the nucleus of the meeting will be formed by organizations of interests primarily chemical, while other groups including pulp and paper, glass and ceramics, leather and tanning, photography and photochemistry, metallurgy, methods of testing materials, materials of chemical construction and engineering, fertilizer and allied interests will be represented, according to the early plans.

With the 1925 Chemical Exposition some ten months in the future, a show larger than the last one in 1923, is said to be already assured. Redoubled interest in the exposition next year is already in evidence for it is believed that the number of new products, machinery and instruments which will be on display will be greater than in any previous year.

Chemists' Annual Meeting

The fourth annual meeting of the American Association of Textile Chemists and Colorists scheduled for yesterday and today at Philadelphia called for an unusually interesting program. The session this morning was featured by a business meeting followed by several valuable technical papers. Probably the outstanding section of the program was a symposium on artificial silk listed for this afternoon at which representatives of the various companies manufacturing this material discussed the individual types. Details of the meeting will be published in next week's issue of TEXTILE WORLD.

Discuss "Soaps and Oils"

A group conference of manufacturers of the silk industry was held in the laboratories of the United States Testing Co., Inc., New York, on Thursday afternoon. The subject discussed was "Soaps and Oils." Emphasis was given to their use in the textile industries, including laundering, throwing, scouring and cleaning.

Miscellaneous Chemicals				Adhesive and Sizing Materials			
Acetone	15	—	17	Albumin, blood domestic	50	—	60
Alumina-Sulp. com.	1½	—	...	Egg, technical	....	—	...
Iron Free	2½	—	...	Dextrine—Potato	8	—	8½
Alum. Ammonia Lmp.	3½	—	3¾	Corn, bags, 100 lb.	4 52	—	4 57
Potash, Lump	3	—	4	Do, bbls., 100 lb.	4 79	—	4 84
Ammoniac, Sal. white gr.	6	—	7½	Gum, British, 100 lb.	4 82	—	...
Bleach powder, per 100 lb. works, carloads	1 90	—	2 30	Do., bbls.	5 09	—	...
Blue Stone	4½	—	5	Sago, flour	3½	—	4
Calcium Arsenate	8	—	9	Starch, corn, 100 lb.	3 87	—	3 97
Chlorine, Liq. Cylinders	5½	—	7½	Do., bbls.	4 14	—	4 24
Tanks	4½	—	...	Do., t. b., bags, 100 lb.	4 62	—	4 72
Copperas, ton	16 00	—	22 00	Do., bbls.	4 89	—	4 99
Cream of Tartar	20	—	22	Potato	6	—	6½
Epson Salts, 100 lb.	1 35	—	2 00	Rice	8	—	10
Formaldehyde Spot	9	—	9½	Wheat	6	—	6½
Glauber Salts, 100 lb.	90	—	1 25	Tapioca flour	5	—	6½
Glycerine (C.P.) bbls.	19	—	19½	**Coal Tar Dyes**			
Cans	20½	—	21	Direct Colors—			
Yellow Crude	18	—	18½	Black (H-acid)	32	—	35
Hydrosulphite Conc.	24	—	26	Black Columbia FF.	60	—	65
Lead—Brown acetate	14½	—	15	Blue, 2 B	28	—	35
White (crystals)	15	—	16	Blue, sky ordinary	80	—	90
Lime, acetate, 100 lb	3 00	—	...	Blue, 1 GL	2 00	—	2 50
Potassium — Bichromate	8½	—	9	Blue, 4 GL	2 25	—	2 50
Chlorate crystals	7½	—	9	Blue, sky, FF	1 15	—	2 20
Permangan. tech	14	—	16	Blue, Fast, RL	1 90	—	...
Sodium acetate	5	—	5½	Blue Solamine	2 00	—	...
Bichromate	6½	—	7	Benzo Azurine	80	—	90
Bisulphite, 35%	1½	—	...	Brown, C	40	—	70
Nitrite	8½	—	10	Brown, M	70	—	90
Phosphate	3½	—	4	Brown, Congo G	85	—	...
Prussiate yellow	9	—	10	Brown, Congo R	80	—	...
Sulphide, 60% fused	3	—	3¼	Green, B	90	—	1 10
30% crystals	2	—	2¼	Green, G	90	—	1 10
Tartar, emetic, tech.	26	—	...	Orange, Congo	60	—	...
Tin—Crystals	37½	—	38	Orange, Fast S	1 85	—	...
Bichloride, 50 deg.	15	—	15½	Red, Fast F	90	—	1 10
Oxide, lb.	58	—	60	Red, Congo	45	—	70
Zinc Dust	8	—	8½	Benzo Purpurine 4 B	40	—	75
Acids				Benzo Purpurine 10 B	1 40	—	2 00
Acetic, 28% per 100 lb.	3 12	—	3 37	Scarlet, 4 BA	1 50	—	...
Citric crystals	45½	—	46	Scarlet, 4 BS	2 10	—	...
Formic, 90%	11½	—	...	Scarlet, 8 BS	2 15	—	...
Lactic, 22%	5½	—	6½	Scarlet, Diamine B	1 65	—	...
Muriatic, 18 deg. per 100 lb. in t'k cars	80	—	90	Violet N	1 10	—	1 25
Nitric, 36@42 deg. per 100 lb.	4 25	—	6 00	Yellow, Chrysophenine	65	—	2 10
Oxalic	9½	—	10	Yellow, Stilbene	90	—	1 00
Sulphuric, 66 deg. per ton in tank cars	14 00	—	15 00	Developing Colors—			
Tartaric	26	—	29	Black, B. H	60	—	90
Alkalies				Black, Zambesi	3 50	—	...
Ammonia, aqua, 26 deg.	6½	—	7	Bordeaux, Dev	2 50	—	...
Borax, Crys., bbls.	5	—	6	Orange, developed	2 50	—	...
Potash, carbonate, 80-85%	5	—	6½	Primuline	1 00	—	1 15
Caustic, 88-92%	7¼	—	8	Red, Dev. 7 BL	2 50	—	...
Soda Ash, 58% light	2 00	—	2 20	Scarlet, Dev	2 50	—	...
Contract, 100 lb.	1 25	—	1 63	Sulphur Colors—			
Bicarbonate, per 100 lb.	2 00	—	2 25	Black	18	—	28
Caustic, 76% per 100 lb.	3 75	—	3 90	Blue, cadet	80	—	95
Contract, 100 lb.	3 10	—	...	Blue, navy	50	—	60
Sal, 100 lb.	1 15	—	1 25	Brown	20	—	60
Natural Dyes and Tannins				Green	85	—	1 25
Fustic: Crystals	20	—	22	Green, olive	25	—	60
Liquid, 51 deg.	9	—	12	Yellow	45	—	1 80
Gambier, liquid	13½	—	14	Basic Colors—			
Hematine, crystals	14	—	20	Auramine	1 20	—	2 00
Hypernic Ext.—51 deg.	13½	—	15	Bismarck Brown	55	—	65
Indigo—Madras	....			Chrysoidine	50	—	65
Logwood Extract, liq. 51 deg.	7	—	8	Fuschine crystals	1 90	—	2 00
Crystals	14	—	16	Malachite green	1 80	—	...
Osage Orange, Extract, 51 deg.	7	—	7½	Methylene blue	1 35	—	1 50
Osage Orange, Crystals	14	—	15	Methyl violet	1 10	—	1 25
Quercitron, extract 51 degs.	6	—	7	Rhodamine B, extra conc	6 00	—	...
Sumac, Ext. dom., ref., 51 degs.	6½	—	7	Rhodamine 6 G	12 00	—	18 00
Extract, stainless	9½	—	10	Safranine	1 60	—	2 00
Tannic Acid, tech	35	—	40	Victoria Blue B	2 00	—	3 00
Dyestuffs Intermediates				Acid Colors—			
Alpha Naphthol, ref.	85	—	90	Naphthol blue blk	40	—	70
Crude	60	—	65	Naphth lamine black 4 B	60	—	75
Alpha Naphylamine	35	—	37	Alizarine saphirol	3 25	—	4 00
Aniline Oil	16	—	17½	Alkali blue	3 50	—	4 50
Salt	24	—	26	Indigotine	75	—	1 80
Beta Naphthol, sublimed	55	—	60	Induline (water soluble)	75	—	85
Technical	22	—	24	Soluble Blue	2 75	—	3 50
Dimethylaniline	34	—	36	Sulphocyanine	70	—	95
Metaphenylene Diamine	90	—	95	Sulphone Blue R	60	—	95
Paranitraniline	68	—	70	Patent Blue A	2 85	—	...
Oils and Soaps				Resorcin brown	80	—	90
Castor Oil, No. 3	16½	—	18	Guinea green	1 00	—	2 20
Olive Oil, denatured, gal.	1 20	—	1 25	Wool green S	70	—	2 10
Foots	10	—	...	Orange II	29	—	33
Red Oil, lb.	11	—	11½	Orange GG crys	60	—	...
Stearic Acid, double pressed	12	—	14	Acid fuchsine	75	—	...
Turkey Red Oil, 50%	10	—	12	Azo eosine G	65	—	82
				Crocein scarlet	1 10	—	1 35
				Fast red A	55	—	65
				Azo yellow	1 10	—	1 40
				F. Light Yellow 2 G	2 00	—	...
				F. Light Yellow 3 G	2 50	—	...
				Naphthol, yellow	1 35	—	1 40
				Chrome Colors—			
				Alliz. Black B	1 50	—	...
				Diamine Black PV	70	—	...
				Chrome Blue Black	50	—	58
				Chrome Brown	75	—	1 25
				Chrome Green	75	—	1 50
				Chrome Yellow	45	—	1 10
				Indigo—			
				Synthetic, 20% paste	21½	—	...
				Contracts	20	—	...

Chemicals and Dyes Active and Firm

Continued Improvement Noted Throughout Trade—Price Advances Outnumber Declines

Continued activity has featured the market for industrial chemicals and every indication points to further broadening as the general manufacturing situation shows still greater improvement. The marked change in the chemical market can best be illustrated by the fact that advances each week now outnumber declines, whereas for some months during the prolonged dullness price decreases were the outstanding if not the sole features of the trade. As a matter of fact the market has gone along in line with the best opinion hazarded in the late summer and early fall. On paper it appeared certain that the trade was in a healthy condition fundamentally and that any slight industrial improvement should be reflected promptly in the demand for chemicals and in the price movement. This is exactly what has taken place.

Actual changes in prices have not been important ones, the tendency being more toward greater firmness in listed quotations and general maintenance throughout the trade.

The alkalies are still being called for on contract in large quantities and the market for both caustic soda and soda ash is entirely stable and strong, with prices for 1925 contracts unchanged from this year's levels. Shipments of both bleaching powder and chlorine have also been in large volume.

In dyestuffs, further improvement is also noted, with purchasers showing a little more willingness to anticipate the future. Naturally the continued increase in activity among textile mills is making itself felt in the dye market. Prices are not advancing, however, the tendency being more toward firmer quotations.

Chemical Equipment Show

First Annual Event in Providence Next June

The First Chemical Equipment Exposition will be held in the State Armory, Providence, R. I., June 22 to 27, inclusive, 1925, under the management of the Chemical Equipment Association and in conjunction with a regular four-day meeting of the American Institute of Chemical Engineers. The exposition will be restricted to displays of equipment, supplies, accessories and essential raw materials used by the chemical and chemically controlled industries.

"The First Chemical Equipment Exposition is the result of business

NOTTINGHAM CURD
TALLOW CHIP No. 2 and No. 3 Chip SOAP

POTASH FIG SOAPS
for Woolens and Worsteds made with
Red Oil Olive Oil
Amber Oil
Olive Foots

TEXTILE SOAPS
MADE IN PAWTUCKET, R.I.
J. O. DRAPER CO.

Palm Oil
Curd SOAP
Olive SOAP
Chips or Bars
Soap Powder
For Mill Floors

Established 1860. Incorporated 1905 LET US SUPPLY YOU

S. R. DAVID & COMPANY
INCORPORATED
Dyestuffs
252 Congress Street Boston, Mass.

"THE ONLY ONE AND ORIGINAL"
"BRADFORD" OLIVE OIL FigSoap
Promotes Lustre and Improves the Spin
Sole Makers:
Original Bradford Soap Works, Inc.
PROVIDENCE, R. I.

EVEN DYEING ASSURED BY DIASTAFOR

— Standardized and reliable, Diastafor is a perfect de-sizing agent for the textiler.

— Easy to use, it improves the quality of your fabrics and assures absolutely uniform dyeing.

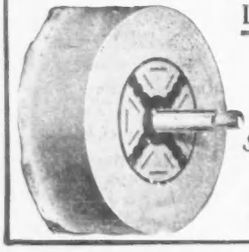
THE FLEISCHMANN COMPANY
Diastafor Dept.
695 WASHINGTON STREET NEW YORK, N. Y.

DIASTAFOR WAREHOUSES:—
Boston, Mass. Cincinnati, Ohio. New York, N. Y. Philadelphia, Pa.

ESTABLISHED 1862
WALTER F. SYKES & COMPANY
IMPORTERS OF
FRENCH ANILINE COLORS AND DYEWOOD EXTRACTS
8 Lispenard Street, NEW YORK
PHILADELPHIA United States Agents BOSTON
ST. DENIS DYESTUFF & CHEMICAL CO.
(Poirrier)
Works—St. Denis (Seine,) France Works—Besseges, France

TEXTILE ROLL & SUPPLY CO.
Roll Specialists
ORANGE, MASS., U. S. A.
Branch Office: 303 Clifton St.
MALDEN, MASS.

Rolls for Textile Dyeing, Washing, and Bleaching Machinery, Carbonizers, Conveying Equipments, and Paper Mill Machinery



LUCKY ROLLS
Special Improved Construction with *Spirat-Winged Gudgeon*
CANNOT SLIP
CANNOT MOVE

Selected Adirondack and Vermont Maple Rolls for all Textile and Paper Mill Uses.

Reels for any Requirements. Fulling Machinery for Felts and Woolens. Piece Dyeing and Bleaching Machines. Wood Tubs and Tanks. Washers and Carbonizers.

WRITE US
for Full Information, Diagram Sheets, etc.

ONYX OIL and CHEMICAL CO.
Oils, Chemicals, and Extracts of Every Description
for
DYERS AND FINISHERS
Office and Works - - - - - - Jersey City, N. J.

WOOL SUBSTITUTES, by Roberts Beaumont $3.00

Covers the entire range of the subject, including sorting, grading, grinding, carbonizing, blending, yarn preparation and cloth manufacture. Chapters on artificial wools, noils and flocks. Cloth; 204 Pages; 53 Illustrations.

Above book sent postpaid to any address on receipt of price

BRAGDON, LORD & NAGLE CO.
Book Department
334 FOURTH AVE., NEW YORK
Send for complete catalog of textile books, free

Textile Manufacturers
Should be interested in DIAX for the following reasons

FOR BLEACHING
Purer whites are obtained, less tendency to weaken fibres, saving of time and chemicals.

FOR DYEING
More level dyeings are obtained with economy of dyestuffs. Thorough degumming of previously dyed and finished goods are easily and cheaply performed.

FOR MERCERIZING
Has increased affinity of the cloth for the caustic liquor, gives better lustre, the mercerizing lye kept clearer and lasts longer.

FOR PRINTING
It is especially useful in making adhesive sizes and finishes, and less expensive, and is devoid of color and easily removable.

FOR FINISHING
Thin fluid mixing are produced which pentrate the cloth better, giving superior results in the handle and feel of the cloth, and economy in the use of starch and dextrine.

Further information gladly given. Write

Malt-Diastase Company
79 Wall Street, New York City
Laboratories: Brooklyn, N. Y.

REG. U. S.
DECALSO
PATENT OFFICE
Water softeners for throwsters, scourers, bleachers, dyers and finishers
LIME & SODA Softeners
FILTERS & PURIFIERS
American Water Softener Co.
S. E. Cor. 4th and Lehigh Ave., Phila., Pa.

Elbert & Company
Importers & Merchants
27 William St.
NEW YORK
COTTONSEED SOAP
Coconut Oil
Palmkernel Oil
Palm Oil
Degras

Dyestuffs and Chemicals—Continued

conditions that have been evident for some time," according to a statement of the board of directors in making the announcement. "It has been called for by preponderant opinion in the chemical equipment field. Current industrial conditions call for the development of direct and unconfused sales and educational contact with the buying fields."

"It is to be noted that the exposition will have no general admission, but a highly selective, directly interested attendance. It will admit by registration only, executives, banking and financial representatives and important stockholders of industrial companies in the chemical and chemically controlled industries, superintendents of these companies, engineers and technical men from these industries, and technical students and educators. There will be no admission fee.

"From an exhibitor's standpoint it will be conducted as a business event, with a minimum of aisle confusion and without long evening hours. From the visitor's point of view it will be staged equally as a business convenience, in which comprehensive inspection and comparison of equipment and examination of cost and performance data, adaptabilities to different processes, etc., etc., will be possible under time-saving but unhurried conditions.

"In addition it will embrace educational and social features bringing buyers and exhibitors into personal contact."

In addition to the regular sessions of the American Institute of Chemical Engineers, special meetings of trade associations in several of the chemically controlled industries will be held in conjunction with the exposition.

Direct charge of exposition details has been delegated to an Exposition Committee comprising Edwin C. Alford, T. Shriver & Co., Chairman; Percy C. Kingsbury, General Ceramics Co.; F. M. Turner, Jr., Chemical Catalog Co.; and G. O. Carter, Linde Air Products Co., president of the Chemical Equipment Association and Roberts Everett, secretary, members, ex officio, of the committee.

Exposition privileges are not limited to members of the Association, although inasmuch as their cooperative preparation has brought the undertaking to a definite stage, they have received preferential consideration in certain circumstances. Membership is open to reputable equipment and supply manufacturers.

du Pont Stock Plan

E. I. du Pont de Nemours & Co., Wilmington, Del., have announced the inaugration of a savings plan and a new stock investment plan for employes. Under the new savings plan employes whose earnings do not exceed $3,000 a year may subscribe for "du Pont thrift certificates" up to the value of 20% of the annual salary, but not exceeding $500 at any one time. Interest will be allowed at the rate of 6% per annum. Under the stock investment plan employes who are not directors may subscribe for the company's 5% cumulative debenture stock at $92 a share, payable in whole or in monthly installments. The subscriptions are limited to 20% of the employe's annual salary, but in no case to be more than ten shares, and the company reserves the right to accept subscriptions for the coming year of not more than 6,000 shares.

Oakley Sales Conference

Eighth Annual Event Held in New York This Week

The usual free interchange of views and good fellowship featured the eighth annual sales conference of the Oakley Chemical Co. held at the general offices of the company in New York on Monday, Tuesday, Wednesday and Thursday of this week. This year's conference celebrated the completion of 16 years of Oakite service by the company. In addition to 18 members of the executive and departmental staffs, 68 representatives, comprising the field organization, attended the meeting.

Sessions were held both morning and afternoon on the first three days of the week while on Thursday morning there was a conference of district managers. The conference was formally opened by remarks of welcome from D. C. Ball, president and Daniel C. Smith, vice-president. Many valuable technical papers were presented by members of the staff at the various sessions. Those of particular interest to the textile industry included "Oakite in Laundries" by David X. Clarin, and "Oakite in the Textile Industry" by Carl Johnson.

Social features planned for the conference included a dinner party and theatre party Tuesday evening and a banquet at the Hotel Pennsylvania Wednesday evening at which C. F. Radley, director of publications, acted as toastmaster.

Dye Tariff Decision

WASHINGTON, D. C. The U. S. Court of Customs Appeals has dismissed the appeal of Lehn & Fink, Inc., who claimed that cresylic acid is free of duty under the coal tar products paragraph of the free list of the 1922 Tariff Act. The acid actually was assessed at 40% and 7c per lb. under the coal tar products paragraph of the dutiable list. The Board of General Appraisers overruled the protest of Lehn & Fink against the assessment and the judgment of the Board was affirmed by the court Saturday in a decision rendered by Presiding Judge William J. Graham.

A Manufacturing Policy that Creates Sales

The first carload of Diamond Soda Ash that was manufactured established a precedent that has been followed ever since. A policy that insists upon quality above all else presents no sales problem.

The success of such a policy is evidenced by the constantly increasing demand for Diamond Alkalies. Consumers of Diamond products have a satisfaction in the knowledge that they are using Alkalies that have become the Standard of Quality.

ALKALI

Diamond Alkalies are Manufactured and Sold direct to the consumer by

Diamond Alkali Company
Pittsburgh, Pa.

While you are giving—give health

THE greatest gift of all is health. You can give that priceless treasure of health to many this Christmas. Buy Christmas Seals. Everywhere are solitary sufferers and whole families stricken by the Great White Plague. Often they have no help except that furnished by the Tuberculosis Associations, which are financed by the annual sale of Christmas Seals.

Give—and feel the joy that comes with giving. Buy Christmas Seals. They have helped stamp out half the ravages of consumption. Buy Christmas Seals, and help stamp out the dread disease entirely.

STAMP OUT TUBERCULOSIS WITH CHRISTMAS SEALS

The National, State, and Local Tuberculosis Associations of the United States

The Credit Situation

(*Continued from page 74*)

the cutters and jobbers of woolens and worsteds.

Every one knows that the most accurate idea of the actual dollars and cents condition of an industry is obtained about the middle of February, when the annual financial statements are received and compared with the statements for previous years.

An intelligent opinion of the condition of an industry at any time can only be formed by knowing the exact financial condition of the majority of the individual concerns in the industry. Now as we cannot judge the condition of the individual concerns from that standpoint, for their statements are not made as yet, still we are in a position to form a very fair picture of the trading position of the industry—and that is what we are really after.

From a trading standpoint, it is not as vital to know whether a concern has made money or not as whether the concern is in a position to buy and pay for its reasonable requirements.

I think that certain figures will convince you, as nothing else could, that a very favorable condition exists at this time, and that your customers as an industry are in a position to absorb their normal merchandise requirements at least.

On Nov. 1, 1924, there were only 77 concerns in the cloak and suit industry that were past due in amounts of any importance whatever, while the total past due indebtedness of the entire industry was merely nominal. In the men's wear trade, there were 506 concerns past due $1,568,000. This shows a decrease of $120,000 since Oct. 1. The amount past due on Nov. 1 was only $700,000 more than on May 1, the low record for past due indebtedness for the last few years.

These statements as to the condition of these two trades are as nearly accurate as figures of this nature could possibly be, as they were obtained from the ledgers of mills and factors doing an annual business in woolens and worsteds of $362,000,000, or 60% of the total sales.

Bankruptcies

There is just one other phase of credits that should be discussed—the number of failures in these industries. Contrary to the usual opinion, there are approximately the same number of failures in the clothing trade each year as in the cloak and suit industry.

During the last three years and ten months, there have been 404 cloak and suit failures and 415 clothing failures—a total of 819. As the liabilities average $60,000, the gross loss to the industry on a basis of sales was 2%, with a net loss of 1.4%.

Compare this loss of 1.4%, which by the way was made only by concerns that sold without credit supervision, with the losses that were incurred through depreciation on commitments, the revaluation of merchandise, and the overhead that ran on with mills partly shut down during the years '21, '22 and '23.

It cannot be brought too forcefully to your attention that credit losses are just as natural as losses made through error in judgment in buying, selling or financing—and that through a period of years are infinitesimal in comparison with the losses sustained in any other division of work where the slightest judgment is required.

I reiterate that these losses were incurred in the most hazardous years in our business experience.

So far this year, there have been only 82 cloak and suit and 64 clothing failures.

And may I point out here, the fact that I am firmly of the opinion that not more than five of every hundred failures is a deliberate, perpetrated swindle. I believe, as I know you do, that practically every man on earth sets out to make a clean-cut success in life—to stand before his family and the community in the highest respect, for that is the natural ambition of every man living.

I do say, however, that 60% or more of the failures are dishonest through influences that need correction.

But at the same time, may I impress this one fact on your mind—to qualify your judgment in regard to crookedness in commercial life: A very careful record has been kept during the last four years, which shows conclusively that where one concern has failed in these industries, four concerns have taken their losses and paid 100 cents on the dollar to their creditors.

At this time, a most earnest effort is being made by credit men to make it practical for concerns losing money to place their affairs before their creditors and obtain the required relief without recourse to the courts.

Immediate Future

We have now come to the second part of the subject—the immediate outlook. On this point, I would like to diverge from the usual course in discussing the future of business.

Frankly, I believe that the future of the woolen and worsted business is up to you. For you are to a very great extent responsible for your contact with your customers.

There is no doubt that you have cause to criticize the customer, but I cannot help but believe that your attitude toward them has had an important effect in causing a reaction on you.

May we start with the opening of a new account. After you have worked to get an order, within 48 hours the customer is asked to make a financial statement on your blank. This is received just when you are trying to establish a contact of mutual respect and understanding between yourselves and the customer.

Do these blanks and your attitude in sending them add anything to further this basic idea? For these

blanks ask not only the actual financial condition, but may continue with from 25 to 200 additional questions.

The argument always is—that if the debtor is good, he has nothing to conceal. And that is true, but he is still a man and, as a man, he resents your action, for he has the same fundamental instincts that you have.

Did you or your family ever buy a trivial amount from a retailer and, the next day, instead of receiving the merchandise, receive a long questionnaire asking about your personal affairs?

Your objective is tenable from a theoretical standpoint. You are trying to place yourself in a position to prosecute a fraudulent bankrupt, but in doing that, unless you discriminate carefully, you are actually persecuting 4500 concerns to protect yourself against 150 possible failures. Fine credit judgment is shown in sending these blanks only where there is actual cause to suspect the intent of the customer.

When a debtor cannot be prosecuted successfully, there is a great cry against the bankruptcy law, and comparisons are made between the laws of this country and those of England, France and Germany. But would any man here exchange the success potentialities prevailing in this country against any other country in the world?

I, personally, feel absolutely convinced that the common sense incorporated in our bankruptcy act, which is not a penal measure, is responsible for at least 50% of the phenomenal commercial expansion in the United States.

Contact

Before closing I would like to comment on the trend of your industry from the standpoint of contact between yourselves and your customers. We know that your future welfare is very closely entwined with that of the cutters, and the cutters look almost entirely to the retailers for their progress.

At this time an unusual condition exists in that the retailers throughout the country have radically changed their merchandising policies, while the cutters and mills have not as yet been able to make their methods meet the new requirements.

This change which has taken place in retailing methods is based upon sound economic reasoning—taking perpetual inventories.

In a nutshell—this is the result: The retailers no longer, in making advertised sales, depend upon their own accumulated surplus stocks for merchandise, on which they take their own loss. Today, as the retailer is not overstocked, the advertised sales are made up of stocks bought expressly for that purpose from the cutter, and the cutter takes the loss. These losses, naturally, react on you.

In taking these perpetual inventories, one of the important facts revealed is that it is not necessary to have on hand more than 50% of the styles previously carried.

When the cutters adjust their range of styles to a limited number, they will be on a more economic basis, which will materially simplify your problem in supplying the demands of the cutters.

But these points are merely details; what I wish to make clear is this: We are definitely passing through a period of evolution in your industry. When an important change of this kind takes place, a big step forward is always taken by one group of an industry, and the others, not alive to the change, stagnate. Of course, no one clearly foresees all the changes that are necessary. But we may, with slight chance of error, see the way to go about finding the solution.

The groundwork for this must be an understanding on a basis of mutual confidence between you and your customers. For these customers are seriously troubled about their affairs, and it is logical that you should help in working out their difficulty—for it is to your very great advantage to do so. The difficulty is in finding a common ground to start on which is equitable to both.

There is only one common ground for all colors, races, and creeds—sincerity. Even though business conditions have changed for the better, during the last month or so, it is no time for stereotyped order taking. It is time to discuss with your customers their needs, as they are groping in the dark for the answer to the problems confronting them.

It is now time to convince your market that your sincerity is real and permanent. This cannot be done casually. Your representatives must be instilled with the idea—not of taking orders, but of rendering a service to your customers that will enable these customers to turn out your merchandise to retailers at a fair profit.

I feel particularly diffident in discussing a subject with you that you know so well, but my viewpoint of the situation is from a different angle from yours—and I have observed the mental attitude of your customers, which, frankly, is bewilderment.

In summing up, it all simmers down to this: The cutters must adjust their methods to meet the trading conditions of the retailers, and it seems equally true you, who are so closely in contact with them, must convince them of the sincerity of your purpose by changing your methods, as far as possible, to fit in with the changes they must make.

This will be difficult for most of us as we have fixed ideas, but if I may make one final suggestion, it is this: Irrespective of your opinion of the future of your business, we, one and all, will suffer no loss by instilling in our own organization absolute sincerity of purpose—the spirit of service—and the will to win. And even if this is only partially carried out, the future welfare of your industry cannot be in doubt.

OBITUARY

Samuel Marsden

Samuel Marsden, superintendent of the Bigwood Woolen Co., Spencer, Mass., died suddenly at his home in that town on Nov. 27, in his forty-sixth year. He worked as usual the previous day. Mr. Marsden was a native of England and came to the United States 33 years ago. He learned the mill business in Rhode Island and went to Spencer 14 years ago, since which time he had been superintendent of the Bigwood mill. He leaves a widow and three sons. Mr. Marsden was a member of the Masonic fraternity in Rhode Island and the body was sent to that state for burial on Sunday.

Daniel J. Taylor

Daniel J. Taylor, senior member of the firm of Taylor Bros., manufacturers of cotton and worsted dress goods, Amber and Hagert streets, Philadelphia, died at noon, Monday, December 1 after an illness of several months. Mr. Taylor was fifty-two years old. Five years ago he and his brother, Samuel J. Taylor, took over the business of E. Wilkinson & Sons under the name of Taylor Bros. He was well known throughout the textile trade. Mr. Taylor, who was a member of the Manufacturers' Club and other organizations, is survived by his widow, a sister and three brothers.

George A. McKechnie

George A. McKechnie, prominent in the glove industry of Fulton county, died at Gloversville, N. Y., following a short illness. He was a member of the firm of McKechnie Bros., glove selling agents for many of the prominent firms in his neighborhood. He was born in Georgetown, Canada and was 40 years old at the time of his death.

Savings and Loan Ass'n.

Under the auspices of the Eastern District of the National Knitted Outerwear Association, a charter has been granted under the title of the Knitted Outerwear Savings & Loan Association with the following officers: President, Daniel Rheinauer, New York Knitting Mills; First Vice Knitting Mills; Second Vice President, Barnet S. Milman; Treasurer, President, Sidney Worms, Franklin Milton Katzenberg, S. Augstein Company; Secretary, William Zvirin; Counsellor, Harold R. Lhowe; Directors, Milton Katzenberg, Daniel Rheinauer, J. Schaerer, August Egerer, Joseph M. Kahn, R. Grisman, John F. Stern, Daniel Starr, Jack Davis, A. S. Waitzfelder, Barnet S. Milman, Sidney Worms, Harold R. Lhowe.

It is expected that the Knitted Outerwear Savings & Loan Association will do much towards making the employes in the industry feel themselves permanently attached to the trade and through it establish their own homes.

The offices of the Knitted Outerwear Savings & Loan Ass'n are at 347 5th Avenue, New York City, where a large number of both employes and employers have already joined in membership.

Business News

South Turns Out Its First Husk Calender Roll

Proof that they intended to produce new finishing machinery as well as act as a repair base for southern textile plants was given a couple of days ago when the first southern-made husk calender roll was shipped from the Greenville, S. C., plant of H. W. Butterworth & Sons Co. This plant has been in operation less than a year.

The husk roll was made for the Union Bleachery at Greenville, S. C. It has all the same characteristics and does not differ in any respect from the thousands of similar rolls which have been turned out by the main plant of the Butterworth company in Philadelphia. Making this and similar types of rolls will be part of the regular operation of the Butterworth southern plant.

Degumming Silk Fabric

The advertisement of the Palmolive Co., appearing in the issue of Nov. 29, showed two microphographs of the silk fabric, one of which is degummed in a Texolive bath. The illustration was designed to show the lustrous, unbroken fibre of the fabric when boiled out with Texolive. The photograph designed to bring out the same point was published in the August issue of this paper, but the half tone reproduction did not do proper justice to it and much of the information value of the illustration was lost. The detail was much clearer in the cut used in the above issue and brought out this interesting illustration much more clearly.

New Building for B. F. Perkins & Son

WILLIMANSETT, MASS. Through the office of Lockwood, Green & Co., engineers, of Boston, Mass., the construction contract for the new manufacturing building of B. F. Perkins & Son., Inc., Willimansett, Mass., has been awarded to the Casper Ranger Construction Co., Holyoke, Mass. Contract for heating and sprinkling has been awarded to Holyoke Hydrant & Valve Co., Holyoke, Mass.

John K. McCloskey Moves Offices

John J. McCloskey, wools and waste, also prominent dealer in textile machinery, will remove Monday, Dec. 8, from his present headquarters, 34 N. Front St., where he has been located for the past thirty-four years, to larger and more conveniently located quarters, 128-130 Chestnut Street, Philadelphia.

Sirrine Opens Chattanooga Office

J. E. Sirrine & Co., engineers, of Greenville, S. C., opened a branch office in Chattanooga, Tenn., on Dec. 1. Fred L. Bryant, who has been with the company for a number of years, is manager. The offices are located in the Tennessee Electric Power Building and will serve Tennessee, North Georgia and North Alabama territory.

COMMISSION AND CONTRACT WORK

AMERICAN·WOOLEN·COMPANY

Custom Service

at lowest possible prices consistent with high grade work. With direct rail connection, sidings, mill tracks and every facility for handling material, prompt delivery is assured.

High grade work in

Wool	*Waste*
Sorting	Dusting
Grading	Garnetting
Scouring	Carding
Burring	Picking

Special attention given to

CARBONIZING

Wool --- Noils --- Rags

Write or Phone for Prices

Riverina Mills

Medford Hillside Mass.

George M. Wallace
Agent
Telephone Mystic 3050

UNITED WOOL DYEING & FINISHING COMPANY

DYERS and FINISHERS

KNITTED AND WOVEN WOOLEN AND WORSTED PIECE GOODS OF EVERY DESCRIPTION

SPECIALISTS ON
BROADCLOTH-PEACH BLOOM - BOLIVIAS
PILE FABRICS

CANAL STREET
PASSAIC, N.J. TEL. 3469

Silk, Cotton, Worsted, Artificial Silk, Linen, and Novelty Yarns, Twisting, Doubling, Reeling, Cops, Cones, Tubes, and Skeins. Winding in every form, single and multiple.

WINDING?

Telephone Trenton N. J., 4308

SCIENTIFIC TEXTILE CO.
Morrisville, Bucks Co., Pa.

COMMISSION SPINNING
Business Solicited
MAANEXIT SPINNING CO.
Webster, Mass.

COMMISSION WEAVING
All kinds of plain and fancy Men's Wear and Dress Goods woven on commission.
E. J. HYLAN TEXTILE CO.
Lowell, Mass.

WASTE
CUSTOM SERVICE
DUSTING
PICKING
CARDING
GARNETTING
ROLL CARDING
EXPERT ATTENTION

Samples and Prices on Request
BOLGER BROTHERS
1139-51 East Chelten Avenue
Germantown, Philadelphia, Pa.

COMMISSION SPINNING

Bradford knitting yarn from tops in singles, two and four ply.
Deliveries 5000 lbs. a week on Cheeses or skeins.
Results 93 to 95% of yarn.

BLOOMSBURG WORSTED MILLS
Bloomsburg, Penna.

The Textile Clearing House Will Sell It For You

Commission Spinning wanted. Bradford system. 1s to 30s. Cones, cheeses or skeins.
Address 989, Textile World,
334 Fourth Ave., New York

JOB TWISTING
Delivery in skeins, tubes, cones, balls or cabled
ARCHER YARN COMPANY
69 Sprague St. Providence, R. I.